

AMERICAN NURSERYMAN

The Nurseryman's Forte: To Make America More Beautiful and Fruitful

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Ulmus Procera

**Identifying Trees in Winter
Landscape Planning and Planting
More Orders from Washington
Garden Pinks of Special Value**

AMERICAN NURSERYMAN

F. R. KILNER, Editor

Editorial

VICTORY GARDEN PROGRAM.

Progress of the national victory garden program has been rapid in the past month, as various interests have shared in its promotion. These include national garden magazines, garden clubs, newspapers, state extension services and commercial interests, joining with the federal, state and county victory garden committees.

In the early development of the program, vegetable gardening seemed to overshadow all other phases of the program, and while it may continue to do so in many localities, there are signs that a more even balance may be generally maintained.

The return to this balance is due in part to the clear-sighted activity of nurserymen and other leaders, who recognize the necessity of counteracting the hysteria for vegetable gardens which was prevalent in the earlier World war. To cite one instance, the New York State Nurserymen's Association became active when it became apparent that roses, ornamental shrubs and trees, flowers and fruits needed more publicity. L. J. Engleson, former president, is chairman of the victory garden committee, and he recently sent a mimeographed statement to the nurserymen of New York, pointing out that the intent of the victory garden program is for farmers and urban residents possessing good soil to have vegetable gardens and for everyone to continue to plant and enjoy their roses, ornamentals, fruits and flowers. A nurseryman or florist has been selected in each county to cooperate with 4-H Club chairmen in promoting the campaign. Nurserymen are requested to make contact with the local garden clubs and make certain that everyone understands that the victory garden program does not mean to destroy beauty and plant vegetables.

In some other states, the state association of nurserymen is actively cooperating in the program with a member on the state advisory committee, though in many states no conspicuous part has been taken.

There is no lack of publicity re-

The Mirror of the Trade

garding the victory garden program in newspapers, garden magazines, garden club programs, federal and state institutional radio programs, etc. The Boy Scouts of America have issued a sensible bulletin to scout executives, emphasizing the fact that a scout home garden should be undertaken only if the task will be completed, because a neglected or unfinished job is distinctly not character building.

For use in the campaign, state extension services are issuing bulletins, an attractive "Illinois Garden Guide" appearing recently, circular 522 of the University of Illinois college of agriculture, Urbana. Pamphlets and leaflets have been issued in other states. The nurseryman should become familiar with such material available in his state, for help to his customers and for publicity regarding the campaign.

Commercial printers are taking advantage of the campaign to issue material that may be helpful in some localities.

The American Association of Nurserymen is issuing releases to leading newspapers with garden departments and has supplied them mats of the victory garden emblem. Sheets of stamps have been provided members.

Nurserymen should tie in closely with the campaign in their spring advertising. Retail catalogues of some firms show they have taken advantage of this opportunity, but others sadly lack any mention of the program at all. When nurserymen have this opportunity to do their part in wartime by maintaining morale, at certainly no hurt to themselves, they should do so. Shabby homes and neglected grounds will not hearten the civilians at home or give pleasure to the soldier or sailor returning on furlough. For refreshing body and mind, trees and flowers are most wholesome.

CONSUMER BUYING.

Already the prediction is coming true that the public, when unable to buy automobiles, tires, etc., will spend its money in other channels. Department store sales in the last week of February were reported by the Federal Reserve Board to be twenty-

five per cent greater than the same week last year. The sums being spent for household furnishings now indicate ample public funds for buying nursery stock when spring gives the gardening urge.

BACK TO THE PRIMITIVE!

With the report that the government spent over \$3,000,000 on building the LaGarde general hospital, at New Orleans, La., and nearly one-half million dollars on W.P.A. landscaping of the grounds, it is hard to reconcile the news item in the Times-Picayune of February 23, under the headline, "Shrubs Sought for LaGarde Hospital," to the effect that the Garden Study Club of New Orleans asked contributions of evergreens and flowering shrubs from citizens for planting the hospital grounds.

It is a sad comparison on the ability of building contractors and nurserymen to get the government gravy if such huge sums are spent on construction while the planting of the grounds is left to the women, to be done in the manner of our grandmothers when the neighbor's garden was started by contributions of slips over the back fence!

CONVENTION DATES, 1943.

Following is a calendar of next year's convention dates thus far supplied the editor, so that the officers of associations which have not yet scheduled their meetings may avoid conflict of dates as far as possible.

If the officers of other organizations will supply their 1943 dates when set, they also will be published.

December 8 and 9, 1942, Minnesota State Nurserymen's Association, Radisson hotel, Minneapolis.

January 5 to 7, 1943, Western Association of Nurserymen, Kansas City, Mo.

January 12 to 14, Illinois State Nurserymen's Association, La Salle hotel, Chicago.

January 21 and 22, Ohio Nurserymen's Association, Deshler Wallack hotel, Columbus, following short course at Ohio State University, January 18 to 20.

The botanical or scientific names of plants in this magazine conform to the recently issued second edition of "Standardized Plant Names."

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"Remarkable Results"

"Must say that we have had remarkable results from our advertisement. Had two nice orders yesterday that cleaned up our stock of cherry trees and will want to cease publication with the past issue. We disposed of over \$500 worth of trees on \$32 worth of advertising, and no doubt will still have some inquiries to come in from the past issue for peach trees that we still have on hand. Am convinced that if one has something the trade wants your publication is a wonderful medium to use for disposal."

—Walter W. Hillenmeyer, Hillenmeyer Nurseries, Lexington, Ky., February 19, 1942.

Identifying Trees in Winter

By Leon Croizat

It is a botanical sin to put the alders and the witch-hazels together, because these plants are wholly unrelated. My best excuse for doing this is that the bud of certain alders somewhat resembles the bud of the winterhazel, *corylopsis*, and that it is easy to pass from the one to the other in an article which, like the present, is bound to be as short as possible. I could also point out that the family to which the witch-hazels belong (hamamelidaceae, in Latin) is such an odd collection of plants that it does not make much difference whether the alders are tied here to its tail or not. Who but the professional botanist would ever guess that the sweetgum is closely related with the witch-hazel? The hamamelidaceae are a most interesting group of plants, going toward the boxwoods on one side through distylium and coming near the planes on the other on account of the sweetgum.

To come back to the alders, the kinds commonly planted, the hazel alder, *Alnus rugosa*, and the European alder, *Alnus glutinosa*, are so well known that they do not need extensive introductions. The bud of the former, which may be taken as an

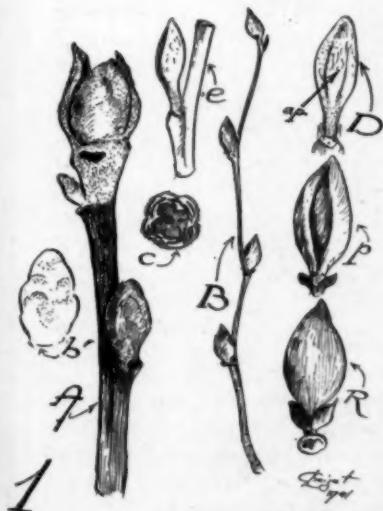


Figure 1.—(A) Fothergilla monticola, showing flower bud at the tip of the branchlet. In (b') the core of the bud, in (c) a section through it. (B) Corylopsis pauciflora, with details of the bud (back and front, P, R). (D) (e) The common hazel alder, *Alnus rugosa*. In (ap) the apron scale described in the text.

Because of the similarity of their buds, the unrelated genera of alders and witch-hazels are treated together in this article on their winter characteristics, by this expert in plant identification at the Arnold Arboretum.

example, is built in a peculiar manner. It is borne on a short stalk of rubbery consistence, which can be moved right and left without breaking easily and has an outer coat consisting of two scales. One of these scales is somewhat longer and bigger than the other, and encloses it in the manner shown in figure 1, D. There is a suggestion of the "cloak-and-apron" arrangement of the lindens in the alders' buds, as the reader may recall, but the difference is that in the lindens the "apron" scale—that is, the shorter scale in front—surrounds the "cloak" scale—the longer scale in back—while in alders the "apron" scales (ap in figure 1, D) barely show up, being smothered within the embraces of the "cloak." The buds of alders are more or less resinous, and rather more waxy than resinous in the hazel alder. Figure 1, E shows this bud seen from the side. The scales are of a more or less deep wine color.

A knowledge of the buds of alders is necessary, because current texts of reference key these plants on the bud characters, some being described as having three to six imbricate scales; others, like the hazel alder, only two. The difference between these buds is rather more in the details than in the fundamentals of the arrangement; when a bud with two scales is grown through, so to speak, some of the scales come to light from the inside. In other words, the bud of the green alder which is keyed for three to six scales is not altogether unlike the bud of the hazel alder when this begins to open and two or three of its inner scales come out. The term "imbricate" applies to all these buds, of course, but it should not be taken to mean that the scales of an alder's bud are as neatly overlaid ("imbricate" means arranged like tiles on a Spanish

roof, or scales on the back of a fish) as are those of an oak.

The species of winterhazel, *corylopsis*, a group of plants which are in no way botanically related with the alders, also have a two to three-scale arrangement (see figure 1, B, P, R; figure 2, A, B). When these plants carry fruits, which is not rare in the fall, if not shortly before springtime, it is easy to tell them apart from the alders. The catkins and cones of *alnus* are unmistakable, and so are the peculiar nutlets of the winterhazel (figure 2, F). The reader would do well in learning to recognize these nutlets, because they are characteristic of all the cultivated hamamelidaceae despite their being variously arranged on the branchlets. Thus, the spiked heads of the sweetgum, *Liquidambar styraciflua*, are made of many of these nutlets grown together; in the fothergillas the nutlets are strung along the branch, but not loosely so; in the witch-hazels, on the contrary, they are scattered in groups of one to few

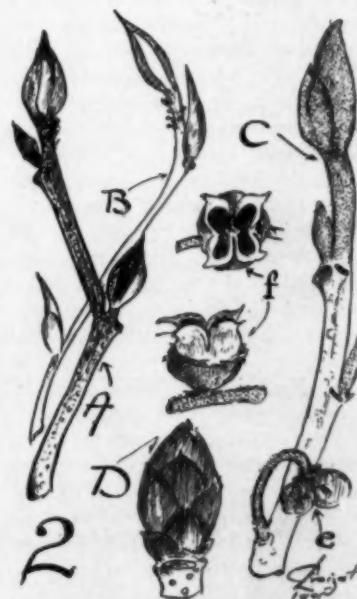


Figure 2.—(A) *Corylopsis spicata*. Notice the stoutish twig, slightly hairy at the tip. (B) *Corylopsis platypetala* with open fruits in (f). The pinlike hairs described in the text are shown under the uppermost bud. (C) Japanese witch-hazel, *Hamamelis japonica*. In (e) the flower buds. (D) Bud of a free-grown shoot of the sweetgum, *Liquidambar styraciflua*.

nutlets, which is also the case with most species of winterhazel.

In the bud of the buttercup winterhazel, *Corylopsis pauciflora*, the base of the bud bears in the majority of cases some small scales (figure 1, P, R) of a kind not found on alders. These scales are definitely persistent, lasting on some of the buds even into late winter; if they fall, they leave conspicuous scars, which a trained eye can identify without much trouble. The scales of the bud of *Corylopsis platypetala* are pointed (figure 2, B) in a manner reminiscent of the bud of the shadbush, amelanchier, and in some cases the very tip of the twig may be seen throughout the winter to bear hairs of a peculiar nature, with a thickened head like that of a pin, which are shown in the figure. The characters of the spike winterhazel, *Corylopsis spicata* (figure 2, A), are such, generally speaking, that mistakes are possible, because the stoutish branchlets suggest at first sight the growth of an alder. However, the scales of this and other winterhazels are chaffy, neither thickish nor leathery as are those of the alders and—this is important—neither waxy nor resinous. Thus, even the spike winterhazel can be identified with ease. The winterhazels are the hamamelidaceae which I like best; they are early-bloomers, with dainty flowers borne in graceful garlands or clusters, and the foliage is not unpleasing, far from it.

The sweetgum, *Liquidambar styraciflua*, has buds that radically differ from those so far described. The scales are neatly imbricate, as shown in figure 2, D, in a manner that to the untrained eye may suggest the bud of the horsechestnut. These scales, yellowish green or pale brownish, often dark and slightly hairy at the margin, are easily recognized by those who have once taken a good look at them. Instead of shining on account of their being smeared with some sort of resin, as is the case with the European horsechestnut, the scales of the bud of the sweetgum have a natural polish. When the sun is on these scales, those who have learned to know them need but a glance to recognize the sweetgum. Then, of course, this tree can be identified by the characteristic "balls" that are strewn on the ground around any mature specimen, which, unlike those of the plane, are spiked and hard; by the sharp contrast of the bark, rough and blackish on the trunk and older branches, ashen

gray on younger wood, and often, though not always, by the presence of corky wings on the branchlets. The buds on a free-grown shoot are generally slightly swollen at the middle, as shown in the figure, but on short spurs the buds taper more uniformly toward the tip. The male flowers of the sweetgum are seldom noticed, because they fall almost immediately after unfolding. The "balls" are only female flowers grown together to the fruit stage, though they sometimes bear also some scattered stamens (male organs), these only to be seen when the "ball" comes out in the spring. Students and instructors can find in the sweetgum, the witch-hazels and their kindreds almost everything they need to learn and to teach as to how fruits are put together by mother nature.

The witch-hazels have naked buds—that is, buds that are not scaly, but are formed by much reduced leaves clustered together (see figure 2, C, topmost bud particularly). The tip of the branchlets in these shrubs is soft and can be moved back and forth without breaking. The species here illustrated is the Japanese witch-hazel, *Hamamelis japonica*, which is often cultivated and blooms early in the spring. The flower buds are unlike leaf buds, more or less rounded, and are carried below the tip of the branchlet (figure 2, E) in a characteristic manner. All the witch-hazels tend to be large and somewhat coarse shrubs, with a bark that is mostly light-colored, particularly so in the Japanese species. The common witch-hazel of our eastern states, *Hamamelis virginiana*, blooms in late September or October in a manner that suggests, indeed, the doings of the witches; every other plant is dying out or dressing in mourning, except this one which flares then in all its glory. Even more peculiar is the vernal witch-hazel, *Hamamelis vernalis*, a plant that ranges from Missouri to Oklahoma (the reports that have it in Louisiana refer to another species, *Hamamelis macrophylla*). This shrub comes into bloom in the deepest part of the winter as the earliest herald of the unborn spring. With us, the flowers of the vernal witch-hazel do not get much of a chance, because they unfold when the temperature goes above freezing for a few days, and then are killed when a cold snap wings its way from the north. Those who like to see something that speaks of April when

the calendar is set on January may plant this witch-hazel in some protected place and enjoy the sights.

The Persian parrotia, *Parrotia persica*, a large shrub with many heads, has buds at the tip of the branchlets that bear only leaves and resemble those of the witch-hazel. The floral buds are borne like that of *hamamelis*, too, but instead of being light brown, they are of a pleasing and peculiar color, a rich velvety brown occasionally turning sooty black. This color and the flaking bark of the trunk, which suggests the plane and *Cornus kousa*, make it easy for anybody who has once seen this plant to recognize it later. *Parrotia persica* has much botanical interest, but its horticultural merits are not such as to make it probable that it will ever be grown extensively.

The fothergillas are neat shrubs, native in our country, with more or less feathery whitish flowers, reminiscent of those of the fringe-tree, *chionanthus*, and leaves that turn with rich colors in the fall. The bud at the tip of a mature branchlet usually bears flowers. This bud consists of a central core (figure 1, A, B') incased by scales so tightly grown together as to look like one, and surrounded in addition by some abortive leaflets, like those of the bud at the tip of a branchlet of witch-hazel. The bud of fothergilla looks on sight much like that of *Magnolia stellata*, but a careful check shows that the wood of fothergilla lacks the odor which is characteristic of magnolia, and that the scales in *Magnolia stellata* are much more long-haired. In addition, a cut taken through the bud of fothergilla (figure 1, C) reveals the outline of several clusters of flowers, while a cut through the bud of magnolias shows only one large flower. Beginners are likely to mistake the bud of fothergilla for that of a viburnum or the lantana kind. It can readily be seen, however, that a fothergilla is not a viburnum because it bears alternate, not opposite, leaf scars.

In parting, a last advice: When you stock on witch-hazels, see to it that you get material with flowers of a good color. The same species occurs in these plants with beautifully colored and with poorly colored flowers. A witch-hazel with bad flowers is worth little.

Landscape Planning and Planting

By Joseph P. Porter

In the preceding article we discovered that axis lines can be a powerful factor in the designing of landscape schemes both in their application to entire properties and to specialized gardens per se. It was pointed out that the degree to which they are developed varies greatly with the spirit and style desired for the layout, but that in all cases, no matter how naturalistic, informal or modern the arrangement, at least one or more axis lines must be used to relate some important room of the residence with the outlying landscape, without which there can be no unity between interior and exterior. It is at this point that I wish to pick up our study.

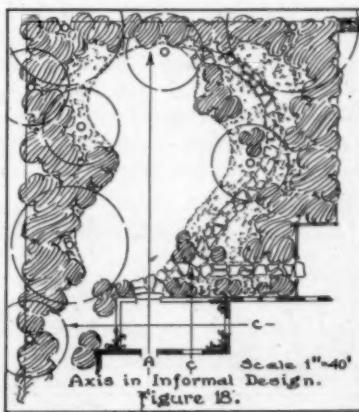
Before we attempt the consideration of several specific problems related to the handling of axis lines, it will pay us to review the points brought out last month and to examine carefully the three diagrammatic and typical schemes illustrated in figures 17, 18 and 19. You will observe that in each of these diversified situations lines A relate the house interior with the garden development and are also very definite routes of travel or circulation. In the majority of landscape schemes this line becomes the major axis and connects the house with a living area terrace. Here the axis may be stopped, but more frequently it continues across the terrace to relate it in turn to either the private lawn or to a developed garden. Rarely, if ever, should an A type line be terminated by a distant view or offscape. It is

XII. LANDSCAPE DESIGN.

Axis (continued)

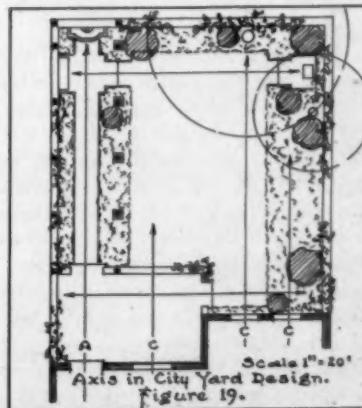
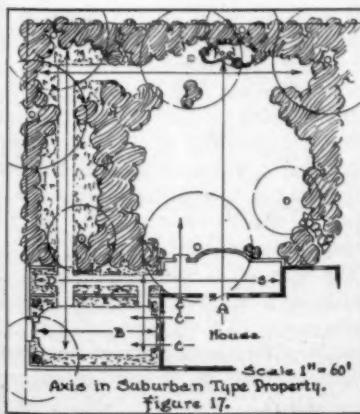
Twelfth in a series of monthly articles on the application of landscape architecture to the property of Mr. Average Citizen, by the professor of landscape design in the department of horticulture at Cornell University, continues discussion of the treatment of the public unit area, or front yard, as to shrub planting for various purposes.

much better to stop it within the boundaries of the property, since the development along and at the terminals of these A lines should be of a nature that stimulates a desire to



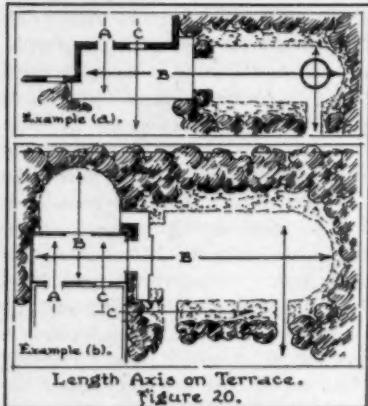
leave the residence and visit the garden. A cozy and attractive terrace, a garden pool, a colorful bit of flower garden, or a shadow-flecked lawn with some benches at its far end will entice us into the garden with the desire for intimate inspection. Such aspects as these stimulate us to action; at least, they suffice to get us outdoors. Distant views, upon the other hand, are static and are best enjoyed from a resting or sitting area. Such views are marked C in the accompanying sketches. Note that they may occur both from house windows (never the doors) and from points within the gardens proper, such as the terrace, a summerhouse, or a seat beneath some friendly tree. Note also, that

in relation to outside developments these view axes are oriented at an angle with the line of approach or circulation that leads one to the point from which the view is to be enjoyed. To stop and turn slightly to see the offscape adds interest; to be able to sit down and contemplate the scene without feeling the urge to move forward due to a continuation of the path or garden in the direction of the view increases the observer's satisfaction. Best effects are obtained when the foreground to a view as seen from the point of vantage is in harmony with the spirit and character of the view itself. This principle is violated frequently by careless designers. By way of illustration, I shall cite the case of an expensive development on the shore of Lake Erie. The residence overlooks a wide bay of water to a delightfully wooded point or neck of land. The spirit and atmosphere of the scene is naturalistic, peaceful and broad. The house was placed to take advantage of this condition and an outdoor terrace was designed for its enjoyment. But the designer, instead of developing a foreground of rolling lawn and informal shrub groups, injected into this scene an intensely developed Italian formal garden with marble statues, regular beds of showy flowers and formally clipped hedges and topiary specimens, and finished the lake edge with an ornately balustraded wall. Both garden and view were ruined by this thoughtlessness. Views also need adequate framework and shrubs and trees to separate them



from near-by distracting elements and to focalize and emphasize the important aspect. This framework should include the use of canopy material, overarching tree branches under which one looks out to the distant panorama.

Axis lines other than those that subtend vistas and broad views need definite termination. These lines are represented by the B lines in the figures. Note that some man-conceived



or man-made development is located at both ends of the A and B axes. As properties or gardens approach the formal from the naturalistic, the number of these B axes increases, as do also the power and artificiality of the terminals. There is a trend today to use but few axis lines and to terminate them with occultly balanced arrangements. This will be discussed later when we consider the contemporary style of landscape.

Now for a few general suggestions relative to the origination of axes at, and their relation to, the house.

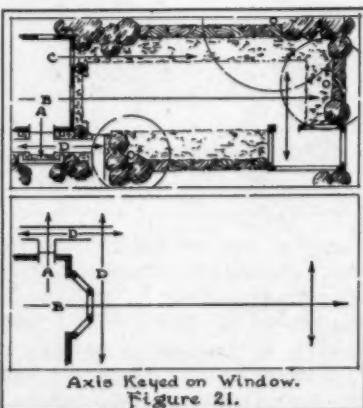
(1) Axis lines should be extended from French doors or any door opening into the garden section of the property. (See the A lines in all figures.)

(2) These axes may extend all the way across the garden area (see A in figures 17, 18, 19 and 25), or they may be stopped upon a walk or terrace located next to the house, as in figures 20, 21 and 24. This is often the ideal arrangement, as it permits a change of direction and the development of axis lines extending in a wide variety of directions. (See axis lines D in figure 21 and D-S in 24.)

(3) Long terraces suggest and give importance to an axis paralleling their length. On most properties this line

needs strong development and should lead into a garden or to some man-made feature rather than across an informal lawn or to a view. The length suggests movement or progression. (See D-S line in figure 17 and B lines in figure 20.)

(4) When a good door is not available, the main garden axis may be keyed upon a bay window or other large window in order to bring the gardens into relationship with the house. (See B lines in figure 21.) It has already been pointed out that regular windows should subtend views and vistas rather than intensively developed axes. This, however, is offset if no other good means of relating house and landscape can be achieved. When a window must be utilized as a main axis, the garden treatment should suggest interest and beauty without exciting a strong urge to get up and move to the end of the garden. The poorest form of development to place beyond a window is typified by a garden walk, a pergola or a pleached allée. These strongly induce movement and are unrestful to look at while seated inside the house. Neither should the views from windows focus upon the edge of a long bed of flowers, or a hedge or wall, or the edge of a shrub border. The edges of these extending parallel to the view line produce an

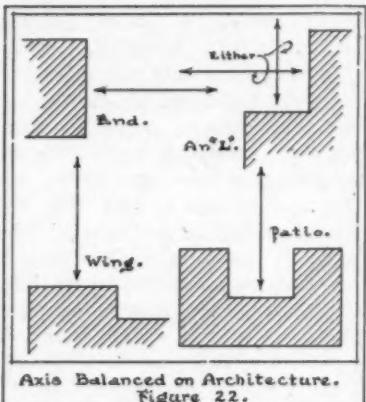


unfortunate effect that should be studiously avoided if possible. (See C in figure 21.)

(5) Axis lines may be keyed in relationship to the center of architectural balance either at the end of a house, or against the end of a wing, or L, or within a patio court. When this is done, the lines often originate against a blank wall directly below the line made by the ridge of the roof

or against the center of a projecting chimney. This relationship usually produces a good unification between house and gardens, especially if circulation can bring the observer into the garden close to the point of axis origination. (See axis lines in figure 22.)

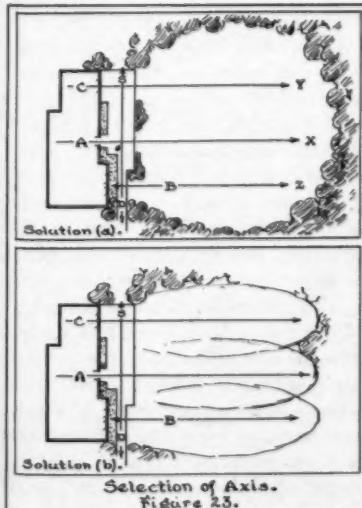
(6) Often a designer has a problem that affords the choice of two or even three possible places for a main



axis, and the question arises as to which should be used. This situation is illustrated in figures 23, 24 and 25. It may be presumptuous to attempt to answer this question, since so much depends upon the character and extensiveness of the gardens required and the ingenuity and desires of the designer. Certain things, however, can be pointed out that may help. Note that in these figures we have the garden door located upon axis A, a large plate-glass window located upon B, and that C centers on the end of a house wing and is flanked by the dining room windows on either side. If only a flower-bordered lawn is required, solution (a) of figure 23 may be the answer. This utilizes axis A and ignores both B and C. If some terminal feature such as a pool is desired it would most likely be placed at point X, since its placement at either Y or Z would be difficult to bring into good balance. Two features placed at Y and Z would be distracting, since we should not see more than one strongly developed garden effect at a time. The use of three features would produce chaos. The best effect would probably be secured if no feature at all is used, allowing all three axes to project without termination across the lawn. Balance, however, should be achieved on axis A.

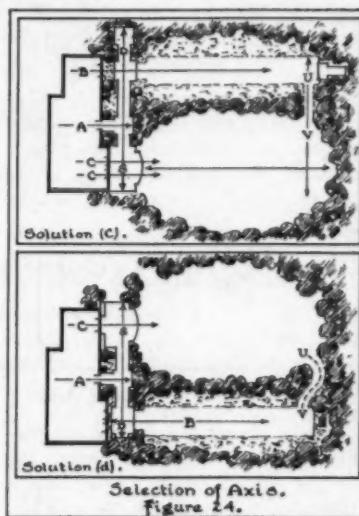
We must study the situation further if gardens, features and lawns are all required. Solution (b) of figure 23 indicates that there is not sufficient room for the development of three different gardens or areas. Not only is there lack of space for the proper separation of these gardens, but the areas so formed are too nearly equal in size and shape. It would be much better to combine two of these areas into one and eliminate the extension of one of the axes or else to combine two axes in a single area. These solutions are shown in (c) and (d) of figure 24 and (e) of figure 25. Note that in each of these solutions a cross axis indicated as D-S has been established linking all three original axes. This new line will definitely be a route of circulation.

The stopping of the A axis will probably produce the best results if one line is to be blocked. This is the circulation route and the termination of this line close to the house checks the progress of an observer and allows him a choice of direction. The affording of this opportunity to select between attractive objectives definitely strengthens the charm of the development. This leaves B and C as the locations for the garden and the lawn area. But how are we to decide which of these shall be placed where? This will be determined for us by the availability of space. The side that



affords the greatest amount of area will unquestionably be developed as the lawn, since the open area of a property should always be more extensive than the closed or developed garden section.

Solution (c) in figure 24 shows a treatment when space is available on the lower side. This places the garden on axis B and suggests that the terrace or outdoor sitting area (marked S on the plans) be located next to the house on axis C where it faces the lawn. Note that the garden has been extended along the D-S axis to include the point where it



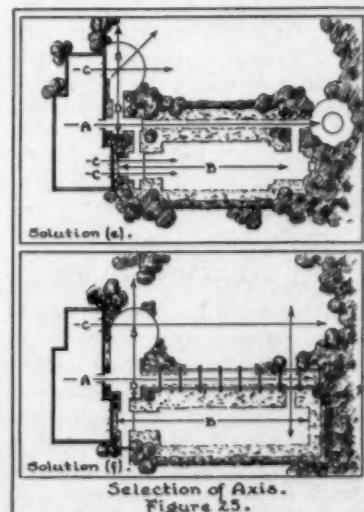
is intersected by the A axis. This provides better transition between garden and lawn area and insures the unification of the entire design. It is not my intention to proceed with a complete study of this problem, but one more point might well be mentioned at this time, namely, a further relationship and connection between the garden and the lawn areas. An additional route of circulation should be provided between the two at their farther end. This is indicated by the line marked U-V. Whether or not this line should be an axis line would depend entirely upon the degree of formality and the character of the development desired by the designer.

Since solution (d) of figure 24 is exactly the reverse of solution (c) because of the availability of space on the upper side instead of at the bottom, a brief comparative observation of the two without further comment from the writer is sufficient. The question may be raised relative to the superiority of one of these two solutions. This can only be answered by the application of the idea to some particular landscape job and would be determined by the factors presented in that specific case. Undoubt-

edly one would be found to fit the problem to greater advantage or, perhaps, neither one of them would be satisfactory.

Solution (e) of figure 25 shows a scheme where two axes are extended into a single area while the third projects into the second area. Again in this type of solution, we shall need the cross axis D-S to unify the lawn and garden. Because of the particular spacing between the axes A; B and C, this type of arrangement does not afford so good a solution as was secured in the design of solutions (c) and (d) in figure 24. The even spacing of these lines forces axis A too close to the border or barrier that separates the lawn and garden. If the garden is built on B and extended to include A, it becomes rather large in size and is out of good proportion to the lawn. We are also faced with difficulty in securing good balance for the C axis which will extend across the turf. Conversely, if A is included with B in the lawn section, it will run so close to the separating boundary that it would be nearly impossible to secure good balance in this area. Of the two possibilities, the first or (e) solution (the only one illustrated) is probably the better.

There is yet one more method of handling this problem. A third development might be set up on the A



axis in the nature of an arbored walk, a pleached allée of small trees or an extended pergola. Any one of these features would permit the extension of the axis while at the same time function to separate garden from

lawn. The formality of these features would be in keeping with the garden and, as its boundary, add both interest and charm. This same character, however, might reduce the degree of informality desired for the lawn area for which it must also serve as a boundary. Neither does this aid materially our problem of securing good balance for the B axis, although this situation is not unsolvable. An attempt at its solution is shown in (f) of figure 25.

If this lesson has seemed overlong or difficult, remember that axis lines achieve results and that their proper use and solution afford the designer much pleasure. In the next installment we shall take up a few more problems germane to their proper handling in design.

DIRECTS OHIO RATIONING.

Harry T. Beckmann, proprietor of Auglaise Gardens, Van Wert, O., and former industrialist, has been appointed by Governor John W. Bricker to serve as Ohio's state rationing administrator to direct the rationing of tires, retreading and capping materials, automobiles and sugar. He will serve without compensation as successor to H. S. Perry, assistant highway department engineer, who was "loaned" to the defense council temporarily.

Mr. Beckmann for the past thirteen years has been the owner of the nursery at Van Wert. He is a graduate of Cornell University, formerly was associated with the old Willys-Overland Co., at Toledo, and at one time headed an advertising firm handling industrial accounts. He is a past president of the Van Wert Chamber of Commerce. B. J.

BILL TO DEFINE LABOR.

Labor unions have been trying to obtain a closed shop agreement in the Yakima fruit districts in the state of Washington, contending that apple workers are industrial and not agricultural labor. Through a boycott of the sale of Yakima apples, the A. F. of L. union seems to have obtained a contract status with some concessions in the Yakima fruit district. If this effort is successful, it will be an opening wedge to unionize all farm labor.

Hence, farm and horticultural organizations are interested in a bill

which has recently been introduced into Congress, H. R. 6230, which defines agricultural labor in distinction from industrial labor.

STATE WAGE-HOUR BILL.

State wage-hour restrictions would be set up in Rhode Island under terms of a bill introduced in the state legislature by Representative John G. Murphy, Providence Republican, who unsuccessfully sought passage of a similar measure last year.

The proposed legislation would establish a 30-cent minimum hourly wage for the first five years of its operation and 35 cents for the next

five years, but wages prevailing in any industry would be subject to revision thereafter following studies by boards appointed by the state labor director to study conditions in the specific industry. The measure would also set a maximum work week of forty-eight hours.

The measure would apply to employees in intrastate industry not covered by the federal wage-hour law, with the exception of those receiving a monthly salary of \$100 or more; those employed in agriculture, seasonal occupations, domestic employment, hospitals and social agencies; salesmen on a commission basis, and persons in industries temporarily exempted by the director. B. J.

AMERICAN ASSOCIATION OF NURSERYMEN

RICHARD P. WHITE, EXECUTIVE SECRETARY

636 SOUTHERN BLDG., WASHINGTON, D. C.

APPEAL ON STARK CASE.

Appeal from the finding of the trial examiner was made before the national labor relations board, March 3, in the case of Stark Bros. Nurseries & Orchards Co., in which the nurserymen were joined in their opposition to the finding by the Farm Bureau, the National Grange, the International Apple Association and National Council of Farmers Cooperatives, because of the broad ramifications of the intermediate report. Final decision in regard to the appeal will probably not be reached for two months.

The refusal, last July, of Stark Bros. to bargain with the organizers was based on the belief that the members of the union were "agricultural laborers," to which the provisions of the national labor relations act did not apply. The report of the trial examiner after a hearing at Louisiana, Mo., last November, to which objections have been filed contained the following conclusion:

"It is clear and the undersigned so finds that in various activities in unloading freight cars, sorting, grading, labeling, ricking, packing, marking, shipping, making boxes and printing, the employees of the respondent are not engaged in agricultural labor. Nor are they so engaged when they graft, bud and rebud. The undersigned also finds that the respondent's business is itself not agricultural, within the com-

mon meaning of that term, but is in effect largely the production, by artificial means, of various patented and trade-marked types of trees and plants. The character of its business considered as a whole is industrial rather than agricultural. The undersigned finds that the respondent's employees are not agricultural laborers within the meaning of section 2 (3) of the act."

RUBBER SHORTAGE ACUTE.

Replying to members' inquiries if some relief could not be obtained from the strict tire rationing regulations, R. P. White, executive secretary of the American Association of Nurserymen, in the members' newsletter, declared, "The rubber shortage is not phony." Quoting the essential civilian uses listed in the rationing order, which was given on page 10 of the January 15 issue of the American Nurseryman, Mr. White concludes that even if a nurseryman was delivering, on government contract, nursery stock to a defense housing project or to a military or naval establishment, and the tires on trucks being used were no longer serviceable, he still could not get new tires or retreads if he owned or operated other trucks that could be used to make these essential deliveries. He recommends that secondhand tires, if procurable, should be obtained for essential cars and equipment.

More Orders from Washington

PRIORITY FOR REPAIRS.

Priority assistance for the repair and maintenance of agricultural machinery in the hands of American farmers has been made available by an amendment to the repair and maintenance order, issued February 10 by the division of industry operations of the War Production Board.

A farmer who repairs his machines himself, or the repairman who does it for him, may now use an A-10 rating on his orders for necessary materials, from nuts and bolts to major repair parts. The rating may be applied by "any person located in the United States, its territories and possessions, using tools or equipment to repair or maintain agricultural machinery."

The rating may not be used, however, to obtain or replace items of capital equipment, nor is there any guarantee that the A-10 rating will be sufficient to secure delivery of all types of repair supplies containing scarce materials.

When an order bearing a preference rating in accordance with the terms of the amendment is served upon a dealer or supplier, the supplier may extend the rating to obtain the material which is ordered, or to replace such material in his inventory.

TRUCK REPAIR PARTS.

The War Production Board announced March 6 a program for the production of spare parts for medium and heavy trucks, truck trailers and busses, designed to keep these vehicles in running order.

Orders were issued raising from A-3 to A-2 the preference rating available for deliveries of materials for replacement parts. The rating was raised because it is necessary to the war program to keep existing trucks and busses running. The A-2 rating will give manufacturers a better opportunity to obtain quick delivery of necessary materials.

Since W.P.B. has instructed manufacturers to stop production after March 1 of civilian trucks having a gross vehicle weight of less than 16,000 pounds, it has become neces-

"KEEP'EM FLYING!"

sary to set up a long-range program for spare part production.

Under this program, producers can make during the entire year up to 150 per cent of the number of spare parts sold by them for replacement purposes during 1941.

Many of the replacement parts covered by the orders are interchangeable in passenger cars or light trucks, production of which was halted February 1. In order to permit manufacturers to interchange parts, the orders provide that the A-2 rating may be used to obtain materials for the production of up to forty per cent of the number of parts that can be interchanged.

FIX FERTILIZER PRICES.

The sale of mixed fertilizers, superphosphate and potash was forbidden at prices above those at which retail sales of such fertilizers were made between February 16 and 20 by a temporary maximum price regulation issued February 27 by Price Administrator Leon Henderson. The regulation has a life of sixty days, but before its expiration will be supplanted by a permanent one. The restriction covers fertilizer sales down to a minimum of 250 pounds, and small lot sales will be carefully scrutinized for possible evasion, it is stated. Action to bring about stable prices of nitrate of soda, sulphate of ammonia and cyanamid was announced as to be taken shortly.

TO RATION TYPEWRITERS.

All deliveries of new and used typewriters were stopped at midnight March 6 by a limitation order issued by the division of industry operations of the War Production Board. A rationing program has been authorized, the details of which will be announced later.

The output of typewriter manufacturers has been curtailed in recent months to free the facilities of

their factories for the production of small arms ammunition and other war materials. The sweeping order freezing sales was issued chiefly to prevent a probable run on the typewriters in dealers' hands.

Nurserymen are advised to clean up and have repaired the typewriters in their offices while parts are available. If this is done, the machines will last for a long time, and the slowing up of operations by the necessity of longhand letter writing and order entries will be avoided. Years may be added to the life of a typewriter by regular oiling and cleaning.

PROPOSE PAPER CEILING.

Approximately 200 manufacturers of kraft converting papers, coarse sulphite papers and tissue papers have been asked by the office of price administration to agree not to exceed prices at which they sold all grades of such items during the period from October 1 to October 15, 1941, inclusive.

Favorable response from virtually every manufacturer is anticipated. When the forms are returned, O.P.A. expects to stabilize prices at approximately the present levels on most grades for domestic and export sales.

Sales below the agreement prices will be permitted, and the customary differentials for sheets, distant shipments and small quantities will be maintained on the same basis as that prevailing during the first half of last October.

PAPERBOARD CONTAINERS.

The containers branch of the War Production Board points out that the November, 1941, changes in specifications for paperboard shipping containers were not intended to establish maximum thicknesses for the materials used in making such containers.

Modified regulations governing the shipping of freight in corrugated and solid fiberboard containers were announced November 3, 1941. These specifications, permitting the use of thinner paperboard parts, were expected to save approximately ten

per cent of normal paperboard consumption.

Since that time the containers branch has been advised that some shippers believe that the new specifications were meant to be maximum rather than minimum requirements.

This is not true. While the change in the specifications—supplement 17 to consolidated freight specifications 14—reduced the minimum requirements, it was not intended to affect packing of articles requiring a stronger box. The revised specifications must be exceeded in some cases, it was pointed out, in order to transport certain commodities safely.

Heavier loads of cars and rougher handling, not only by the railroads, but all along the line of production, necessitate the continued use of discretion on the part of shippers.

ROUTING CARLOADS.

Shippers using the railroads were advised March 6 by the office of defense transportation to use normal channels in routing carload traffic, in order to avoid overburdening the most direct routes.

In response to numerous inquiries from shippers regarding the routing of freight traffic, Joseph B. Eastman, director of defense transportation, issued the following statement:

"At the present time there is no need for imposing any general restrictions upon shippers in the routing of carload traffic, and there is no reason why shippers should not follow their usual practice in routing such traffic, avoiding, of course, routes that are unduly circuitous or otherwise clearly wasteful. In times when expedition in traffic movement is a matter of particular concern, shippers naturally tend to concentrate their traffic over the shortest and most geographically direct routes. Such a tendency is quite likely to overburden these direct routes, increasing the difficulties of speedy movement. On the other hand, continued use of normal routes will tend to prevent undue pressure on the most direct routes, with the result that the general flow of traffic, instead of being retarded, in many cases actually will be accelerated."

MANILA CORDAGE.

Manufacturers of Manila cordage are permitted, under amendment 4 to general preference order M-36,

issued March 7, to sell or deliver during the five month period of March 1 to August 1, 1942, five times their monthly quotas (basic monthly privilege) fixed in amendment 3. The monthly quota amounts to seventy per cent of the average monthly sales during 1939.

Amendment 3 prohibited a cordage manufacturer from selling in any one month more Manila cordage than his monthly quota. Later it was learned that February, March and April are normally the cordage manufacturers' peak selling season and that the restrictions on a monthly basis would work an undue hardship. By lifting the monthly restrictions, a cordage manufacturer will not use more Manila fiber than if the restriction remained, but it will permit him to take advantage of the peak season. The order applies to all Manila cordage located in this country, regardless of where it was manufactured, the Philippines or elsewhere.

RAFFIA FOR BUDDING.

No rubber budding strips are being made this year, the only supply being that in dealers' hands. Later such budding strips may be made from reclaimed rubber, but the result of cur-

rent research must be awaited before that is done.

Nurserymen will have to return to the use of raffia, and as this is an imported product, the future supply of it is also uncertain.

Almost all the raffia used in the past has come from Madagascar. Only one small importation has reached this country since September, 1939, and there seems little prospect of any more coming from that source. Raffia is a low-priced product, and the few ships that bring cargoes from Madagascar to this country are used for more valuable products.

About a year ago importations of raffia began to come from the Congo. It is not so good as the stock from Madagascar and, because the natives have had little experience with it, it is not graded or packed so well. But as the only material now obtainable, nurserymen will have to depend on it for 1942 budding.

Since the entrance of this country into the war, it is uncertain how long shipping space will be available for raffia from the Congo, or what the freight and insurance rates will be. Since both supply and price are doubtful, nurserymen who will do budding this year and have not their supplies on hand should secure raffia while it is obtainable.

SUMMER-FLOWERING CHRYSANTHEMUMS



A new feature in garden mums—blooms from August until late fall.
DEAN KAY IMPROVED—Beautiful double rose-pink.

$\frac{3}{4}$ -in. pots, \$2.50 per 10, \$20.00 per 100.
DEAN LADD—Excellent double reddish-bronze.
 $\frac{3}{4}$ -in. pots, \$3.00 per 10, \$25.00 per 100.

MY LADY—Lovely shade of orange-yellow, double.

$\frac{3}{4}$ -in. pots, \$3.00 per 10, \$25.00 per 100.
Why not RIDE on the WAVE of PUBLICITY these new MUMS are getting? Obtain a good stock of them.

THEY WILL MAKE NEW FRIENDS AND SATISFIED CUSTOMERS!

CORLISS BROS. Inc.
NURSERIES

302 Reynard St. Gloucester, Mass.

AMERICAN HOLLY (*Ilex opaca*)

	Each	10	100
2 to 3 ft., B&B	\$1.35	\$10.00	\$ 60.00
3 to 4 ft., B&B	2.00	17.00	115.00
4 to 5 ft., B&B	2.65	21.00	185.00
5 to 6 ft., B&B	4.00	32.50	.....
6 to 7 ft., B&B	6.00	45.00	.....
7 to 8 ft., B&B	10.00	.....	.....
8 to 10 ft., B&B	15.00	.....	.....

Dug F.O.B. nurseries.

If all berried plants are desired, they take the each rate.

Specimens, transplanted and pruned to pyramidal shape.

Hollies don't like to be boxed; truck delivery should be arranged.

EASTERN SHORE NURSERIES, INC.

Easton, Maryland

HILL EVERGREENS

... For Lining Out ...

Lining-out stock of evergreens is not plentiful this spring in good varieties.

We still have the following items to offer, some in limited quantity. We will appreciate your orders for any of this choice stock.

		Each Per		Each Per	
		100	1000	100	1000
Maidenhair Tree	x 8 to 10 ins.	.05	.04	Japanese Spurge	x 6 to 8 ins. \$0.06
Chinese Juniper	o 8 to 10 ins.	.06	.05	Japanese Spurge	x 8 to 10 ins. .07
Chinese Juniper	o 10 to 12 ins.	.07	.06	White Spruce	xx 10 to 12 ins. .14
Keteleer Juniper	Grafts	.28	.25	Black Hill Spruce.....	xx 6 to 8 ins. .10
Pfitzer Juniper	xx 6 to 8 ins.	.15	.14	Black Hill Spruce.....	xx 8 to 10 ins. .14
Pfitzer Juniper	xx 8 to 10 ins.	.20	.17	Black Hill Spruce.....	xx 10 to 12 ins. .16
Pfitzer Juniper	xx 12 to 15 ins.	.35	.32½	Norway Spruce	xx 10 to 12 ins. .14
Pfitzer Juniper	xx 15 to 18 ins.	.50	—	Norway Spruce	xx 12 to 15 ins. .17
Hill Golden Pfitzer Juniper	Grafts	.28	.25	Silver Norway Spruce.....	xx 8 to 10 ins. .20
Hill Golden Pfitzer Juniper	xx 6 to 8 ins.	.14	.13	Pyramidal Norway Spruce..	xx 8 to 10 ins. .15
Hill Golden Pfitzer Juniper	xx 12 to 15 ins.	.35	.32½	Tigertail Spruce	x 6 to 8 ins. .10
Blue Column Chinese Juniper	Grafts	.28	.25	Colorado Spruce	xx 8 to 10 ins. .14
Blue Sargent Juniper.....	Grafts	.28	.25	Colorado Spruce	xx 10 to 12 ins. .18
Green Sargent Juniper.....	Grafts	.28	.25	Limber Pine	xx 8 to 10 ins. .12
Vase-Shaped Prostrate Juniper	Grafts	.28	.25	Hill Mugho Pine.....	x 3 to 4 ins. .06
Andorra Juniper	xx 8 to 10 ins.	.20	.17½	Hill Mugho Pine.....	xx 4 to 6 ins. .17
Spiny Greek Juniper.....	x 4 to 6 ins.	.12	.10	Hill Mugho Pine.....	xx 6 x 6 ins. .23
Spiny Greek Juniper.....	xx 6 to 8 ins.	.16	.15	Scotch Pine	xx 10 to 12 ins. .17
Spiny Greek Juniper.....	xx 8 to 10 ins.	.20	.17½	Scotch Pine	xx 12 to 15 ins. .20
Waukegan Juniper	x 6 to 8 ins.	.10	.09	Douglas Fir	xx 10 to 12 ins. .18
Japanese Juniper	Grafts	.28	.25	Douglas Fir—Snowy Mt. xx 10 to 12 ins. .25	
Hill Japanese Juniper.....	Grafts	.40	—	Upright Japanese Yew.....	x 6 to 8 ins. .12
Bar Harbor Juniper.....	x 6 to 8 ins.	.10	.09	Spreading Japanese Yew....	x 4 to 6 ins. .08½
Von Ehron Juniper.....	Grafts	.28	.25	Spreading Japanese Yew....	xx 8 to 10 ins. .22
Von Ehron Juniper.....	xx 8 to 10 ins.	.15	.14	Brown's Yew	xx 6 to 8 ins. .22
Chandler's Silver Juniper..	Grafts	.28	.25	Hill Pyramidal Yew.....	x 4 to 6 ins. .12
Silver Glow Juniper.....	Grafts	.28	.25	Hill Pyramidal Yew.....	xx 8 to 10 ins. .27
Meyer Juniper	Grafts	.28	.25	Hick's Yew	x 4 to 6 ins. .08
Juniperus virginiana, dk. green	Grafts	.28	.25	Hick's Yew	xx 8 to 10 ins. .18
Redcedar	o 6 to 8 ins.	.03½	.03	American Arborvitae ..	xx 12 to 15 ins. .15
Redcedar	x 12 to 18 ins.	.06	.05	Hill Pyramidal Arborvitae..	x 4 to 6 ins. .09
Burk Redcedar	Grafts	.28	.25	Hill Pyramidal Arborvitae..	xx 10 to 12 ins. .18
Cannart Redcedar	Grafts	.28	.25	Hill Pyramidal Arborvitae..	xx 18 to 24 ins. .35
Cannart Redcedar	xx 18 to 24 ins.	.60	—	Ware Arborvitae ..	xx 12 to 18 ins. .22
Silver Redcedar	Grafts	.28	.25	Woodward Arborvitae ..	x 4 to 6 ins. .09
Silver Redcedar	xx 15 to 18 ins.	.50	—	Woodward Arborvitae ..	xx 10 to 12 ins. .20
Jun. virginiana horizontalis	Grafts	.28	.25	Hemlock	x 4 to 6 ins. .07
Hill Dundee Juniper.....	Grafts	.28	.25	Hemlock	xx 8 to 10 ins. .20
European Larch	o 6 to 8 ins.	.03	.02	Hemlock	xx 10 to 12 ins. .25
European Larch	xx 2 to 3 ft.	.30	.27½		

25 of the same variety and size at 100 rate; 250 at the 1000 rate. Each x indicates one transplanting; o indicates seedlings. March 1 wholesale catalogue now ready for mailing. Dealer's descriptive catalogue, 60 color plates of Evergreens, no prices shown, 50c per copy.

D. HILL NURSERY COMPANY

EVERGREEN SPECIALISTS — LARGEST GROWERS IN AMERICA

DUNDEE, ILLINOIS

Garden Pinks of Special Value

By C. W. Wood

Although pinks, generally speaking, are among the easiest of garden plants, they are often disappointing subjects, because of indolence on the part of their owners. There are a few plants, peonies and gas plants, for instance, which will go on for years, growing in grace and beauty. But pinks are not of that class. They, for the most part, need renewal often, either from divisions, cuttings or seeds, and they need frequent attention to keep them in presentable condition. It is from a lack of appreciation of these facts, I have a notion, that pinks are not so popular as they could and should be in some gardens. These conditions reflect, of course, on nurserymen's sales.

I have no idea how many species of dianthus are entitled to their names, nor what their names should be, for there are few genera in which confusion is more apparent, even to the unpracticed eye. Botanists seem as much confused as laymen; so I shall not attempt to follow the former's course through the welter of synonyms. Rather, I shall stick to the names under which the plants are generally known in gardens, citing the botanist's conclusion when that is known to me. It is not the intention, anyway, to make this a complete account of the genus. On the other hand, the notes will be confined to a few species of special garden value, and especially to their handling in the garden, as experience has taught me.

First, alphabetically and in point of beauty, comes D. alpinus (that leaves out D. alpester or D. alpestris, names which mean practically nothing so far as garden material is concerned). A spectacular plant when well grown, it is often no more than a limp rag, because its cultural needs are not provided. But one cannot be dogmatic about its needs, because local conditions have much bearing on its happiness. The heat of mid-continent areas is its greatest enemy, I suspect, and if that cannot be partially mitigated, there is little sense in trying to grow the plant. Remembering that, I nearly always plant it on a northeast slope or east wall.

So wide a diversity of plants is covered by the genus dianthus that this report on the good things among the species will be welcomed by perennial growers familiar only with the commoner sorts. The experiences are those of the specialist in his plantings in northern Michigan.

It is spoken of as both a lime lover and a lime hater. Farrer speaks of it as "sheeting the high grassy moors of the Styrian limestones with miles of bright foliage" and the florists tell us that it inhabits "calcareous places in the eastern Alps." I have also read, though I cannot put my finger on the reference, that it did best in an acid soil. Actually, it seems quite tolerant, so long as it has a well drained spot, where it will have sufficient moisture to carry it through dry periods. Here it is given just that, an abundance of leaf mold in a gravelly soil making the moisture-retaining medium for not too severe droughts. If a long period of dry weather comes, it needs attention from the hose.

I have gone to this length with the needs of alpinus, as I understand

them, because the beauty of its big, rosy-crimson flowers, on 4-inch stems, commencing in June, is worth all the trouble needed to bring them to perfection. It comes readily from seeds, which are produced freely, and may also be grown from cuttings, preferably fresh growths taken with a heel, and by division of old clumps. It is available in America and should be in the hands of all growers in the cooler sections, at least, who have critical gardeners as customers.

As grown in gardens, D. arenarius is not at all the faintly odorous plant which Linnaeus described under that name. Somewhere along the way (perhaps from close association with D. plumarius) it has acquired a de-

FRUIT TREES

Peach Trees

	1 to 9	10 to 49	50 to 499
6 to 12 ins.	\$0.04	\$0.02½	\$0.02
1 to 2 ft.	.06	.04	.03
2 to 3 ft.	.08	.08	.05
3 to 4 ft.	.12	.09	.07
4 to 5 ft.	.17	.14	.12
5 to 6 ft.	.20	.17	.15
6 to 7 ft.	.25	.22	.20
Augbert, Barbara, Bestmay, Belle of Georgia, Fair Beauty, Carmen, Ea. Rose, Ea. Wheeler, Elberta, Elberta Cl., Ea. Alberta, Ea. Hiley, Golden Jubilee, Halehaven, Hiley, Indian, J. H. Hale, Leutichau, Leona, Mamie Ross, Mayflower, Pallas Imp., Shippers Late Red, Southhaven, Rochester, Uneeda.			

Pear Trees—Kieffer, Garber, Le Conte

	1 to 2 ft.	whips	\$0.10	\$0.08	\$0.07
2 to 3 ft.	whips	.15	.12	.10	
3 to 4 ft.	whips	.17	.14	.12	
4 to 5 ft.	whips	.20	.17	.15	
5 to 6 ft.	whips	.25	.22	.20	
5 to 6 ft., branched		.27	.25	.22	
6 to 7 ft.	branched	.30	.27	.25	
7 to 8 ft., branched		.35	.32	.30	
Douglas and Bartlett, 5¢ per tree higher.					

Apple Trees

	1 to 2 ft.	whips	\$0.10	\$0.08	\$0.06
2 to 3 ft.	whips	.12	.10	.08	
3 to 4 ft.	whips	.14	.12	.10	
4 to 5 ft.	whips	.18	.15	.14	
4 to 5 ft., branched		.20	.17	.15	
5 to 6 ft.	whips	.25	.22	.20	
5 to 6 ft., branched		.27	.25	.22	
6 to 7 ft.	branched	.30	.27	.25	
7 to 8 ft., branched		.35	.32	.30	
Douglas and Bartlett, 5¢ per tree higher.					

	1 to 2 ft.	whips	\$0.10	\$0.08	\$0.06
2 to 3 ft.	whips	.15	.12	.10	
3 to 4 ft.	whips	.17	.14	.12	
4 to 5 ft.	whips	.20	.17	.15	
5 to 6 ft.	whips	.25	.22	.20	
5 to 6 ft., branched		.27	.25	.22	
6 to 7 ft.	branched	.30	.27	.25	
7 to 8 ft., branched		.35	.32	.30	
Douglas and Bartlett, 5¢ per tree higher.					

Fig Trees

	1 to 2 ft.	2 to 3 ft.	3 to 4 ft.
2 to 3 ft.	.15	.12	.10
3 to 4 ft.	.20	.17	.15
Ramsey, Texas Everbearing, Magnolia.			

SHADE TREES

	1 to 9	10 to 49
4 to 6 ft.	\$0.20	\$0.17
6 to 8 ft.	.30	.27
8 to 10 ft.	.45	.40
10 to 12 ft.	.65	.55
Chinese Elm, Black Locust, Russian Mulberry, Silver Maple, Lombardy Poplar, Sycamore, Weeping Willow.		

SHRUBS

	18 to 24	2 to 3	3 to 4
Crape Myrtle, red and pink	18 ins. 8c	ft. 9c	ft. 10c
QUEENSWREATH, 2-yr.	.6c	.4c	

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Buxus sempervirens, 4 to 6 ins.	.05
Juniperus ch. pitcairiana, 4 to 6 ins.	.06
6 to 10 ins.	.10
Juniperus sabina, 8 to 10 ins.	.07
Juniperus sabina Von Ehren, 6 to 8 ins.	.05
Juniperus sabina Von Ehren, 10 to 12 ins.	.07
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SCOTTSVILLE, TEX.

cided fragrance and has also added at times a blush cast to the white with a grayish center mentioned in the floras. Nor has it lost any of its charm in so doing, for it is one of the most desirable of garden pinks with statures of eight or ten inches, offering any gardener "a certain reward for no trouble at all." I have a special liking for it, because of its immunity to leaf spot and most other ills of pinks and also for its ability to grow and put on a good performance in almost any situation, even including a degree of shade which would discourage most garden pinks.

Although *D. arvernensis* has long been used to designate what we thought was a minute form of the Cheddar pink, we are now told that that name rightly belongs to a natural hybrid of *D. monspessulanus* and *D. sylvaticus*, and that our *arvernensis* plant has no connection with *D. caesius*, but that it belongs to the *D. freyni* group. In fact, we are told that *D. caesius* is not a valid name at all, that plant rightly being *D. gratianopolitanus*. It is so much of a mess that gardeners will no doubt continue to call the little plant *D. arvernensis*. Whatever the name may be, it is one of the most attractive little mites among the pinks, delighting the gardener with an amiable disposition, which allows it to be contented in any dry sunny spot, where it will make compact tufts of blue leafage, which are quite covered by fragrant, fringed, pink flowers on 3-inch stems at the usual pink time.

One occasionally sees in gardens a tiny pink, usually under label of *D. brevicaulis*, which deserves the attention of growers. The name is uncertain, as it is with so many pinks. Bailey calls the color of *brevicaulis* purple and does not mention the yellowish tinge which the undersides of the petals of our plant show. It is a lovely thing in its tight mats of dusty leaves, on which are set quite stemless, rosy-lilac flowers, large for the size of the plant. It is one of the tiniest of the easily grown plants, rewarding one abundantly for space in a warm sunny niche.

Caesius, *gratianopolitanus*, *glaucus*, *suavis*, or what have you, needs no introduction, because its mounds of blue "overshadowed in June by fragrant flights of fringed rose-pink flowers, in number as the stars of the

ROSES

No. 1 size, bundles of 10.
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HYBRID TEAS:

	No. 1 20c	No. 1½ 18c	No. 2 15c
Each per 100.....	20c	18c	15c
Each per 1000.....	18c	16c	12c
Ami Quinard, dark red.....	300	200	100
Black Knight, red.....	480	.....	.....
Caledonia, white.....	200	300	500
Charles K. Douglas, red.....	300	600	400
Dainty Bess, pink.....	530	490	250
Duquesa de Panaranda, copper-apricot.....	300	200	100
E. G. Hill, red.....	400	600	300
Edith Nellie Perkins, pink.....	100	200	100
Etoile de Hollande, red.....	500	1,000	1,000
Frau K. Druschki, white.....	200	200	100
Gen. Jacqueminot, red.....	370	.....	.....
Gruss an Teplitz, red.....	300	200	100
Joanna Hill, yellow.....	300	100	300
John Russell, red.....	110	.....	.....
K. A. Viktoria, white.....	200	400	150
La Parisienne, coral-flame.....	210	.....	.....
Louis Philippe, red.....	60	.....	.....
Luxembourg, yellow.....	100	200	200
Mrs. Charles Bell, pink.....	400	300	200
Mrs. P. S. du Pont, yellow.....	100	300	100
Paul Neyron, dark pink.....	700	500	200
Pres. Herbert Hoover, two-tone.....	200	400	200
Radiance, pink.....	2,300	1,500	1,000
Red Radiance, red.....	3,400	3,000	2,000
Skyrocket, red.....	230	.....	.....
Sœur Thérèse, yellow.....	300	200	200
Talisman, two-tone.....	500	600	700
Ulrich Brunner, red.....	100	.....	.....

RUGOSAS:

	No. 1 18c	No. 1½ 15c	No. 2 12c
	Each per 1000.....	16c	12c
Amelie Gravereaux, red.....	310	.....	.....
Belle Poitevine, pink.....	1,270	280	520
F. J. Grootendorst, red.....	1,060	.....	460
Hansa, red.....	940	.....	310
Pink Grootendorst, pink.....	.....	.....	120
Rugosa alba, white.....	900	860	900
Ruskin, red, H. P.....	1,140	.....	.....
Sir Thomas Lipton.....	650	870	.....

CLIMBERS:

	No. 1 18c	No. 1½ 15c	No. 2 12c
	Each per 1000.....	16c	10c
Crimson Rambler, red.....	1,800	790	.....
Cl. American Beauty, red.....	300	400	400
Dr. W. Van Fleet, flesh.....	930	1,120	.....
Excelsa, red.....	480	.....	.....
Glenn Dale, yellow.....	1,080	1,180	2,720
Cl. Gruss an Teplitz, red.....	260	.....	740
Jacotte, yellow.....	180	.....	140
Mary Wallace, luminous pink.....	1,490	720	680
Mermaid, yellow.....	160	240	.....
Mme. Gregoire Staechelin, pink.....	.....	1,200	420
Mrs. P. S. du Pont, yellow.....	75	.....	.....
Paul's Scarlet, red.....	3,090	1,200	1,180
Primrose, yellow.....	430	320
Roserie, dark pink.....	560	820
Scorcher, red.....	260

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Austrian Copper, coppery.....	190	140
Harison's Yellow.....	240
Hugonis, yellow.....	380	200	280
Persian Yellow, yellow.....	130	220

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sky," are known to most growers of perennials.

Callizonus, "incomparably the loveliest of alpine pinks," according to Farrer, is not so easy-going as that gardener said; at least, it has not proved so here in northern Michigan, where we consider ourselves lucky to carry it through two blooming periods. Like most of the high alpine pinks, it requires a cool situation, as on the north side of a rock, in gritty limey soil. I can say no more about it, except that its "great round blossoms, startling in their size and brilliance, with a zone of Persian embroidery in the center" of an otherwise pale rose flower, are ample reward for the effort.

Most writers speak disparagingly of *D. carthusianorum* and all other cluster heads, some calling them gawky, while others say something like "more fuss than feathers." I cannot agree with all they say, however, and especially when I see how customers pick out the brightest colors to take home with them. The species under consideration is a highly variable one; Williams, who monographed the pinks, admitted thirty-six natural varieties, some of which may grow three feet tall, while others may be not over that many inches high. Of the forms available in this country, variety *atrorubens*, with dark red flowers in clusters, on stems up to twenty inches or more, is the showiest. If you cannot find *D. c. atrorubens*, try *D. cruentus*, for the plant is usually sold under the latter name.

Although I am sure that the maiden pink, *D. deltoides*, needs no recommendation from me, I cannot constrain an urge to sing its praises, at least briefly. It is natural that a plant with its wide range, from Scotland to Japan, should vary not a little, especially when it is not at all exacting about soil or exposure, being found in dry fields, in more or less moist meadows, on mountains and along the edges of woods. Out of all its forms, varying from var. *serpyllifolius*—which in turn may be listed as *peristeri*, *prichardi*, *supinus* or others—a perfectly flat mat, sometimes glaucous, to a 12-inch plant of wide-spreading habit, one can find a plant for almost any situation. In addition, many garden forms have been segregated and are available from specialists. Of the latter, Bowles variety, with dark bronzy

foliage and deep pink flowers, and Wisley variety, with similar leafage and showy crimson blooms, are attractive. The possibilities of the maiden pink as a money-maker in the neighborhood nursery have scarcely been touched. As a plant for paved areas, as a carpet for alpine lawns or dry slopes in either sun or part shade, and in a myriad other roles, it has merits seldom dreamed of. All of which is said with conviction in the face of its present popularity.

The reputation of *D. glacialis*, as one reads of it in literature, would lead one to the conclusion that it is an incorrigible little miss. Thus, Mrs. Wilder, to whom many American rock gardeners look for their instructions and inspiration, said it resisted "my most ingratiating advances and callously passed into the beyond under my imploring gaze." I suspect that she had a pink that I once had as, and thought for a long time was, *glacialis*. It was a cantankerous little mite that I could not satisfy in the heavy clay of my Ohio garden, but I know not what it was, though I know now that it was not *glacialis*. Here the true plant grows in light sandy soil, be it acid (as it is supposed to be for *glacialis*) or otherwise, making little tufts of green, from which spring 2-inch, 4-angled stems, each bearing an inodorous rosy bloom, quite large for the size of the plant, but scarcely a sight to rave about. There are several small pinks with far more appeal, and I do not miss it now that it is no longer in the garden. The plant sometimes

sold as *D. gelidus* is scarcely distinguishable from *glacialis*.

The yellow *D. knappi* is included here not because I see any great beauty or utility in the plant, but rather because gardeners have read so many glowing accounts of it that they are always asking for the plant. It has nearly everything against it, so far as I am concerned. In the first place, I know of no species (some highly bred garden varieties are worse) so susceptible to leaf spot. Again, it is more or less monocarpic, and that spoils a plant for me, if it does not possess special merits or self-sows in sufficient numbers to make itself self-supporting. And that *knappi* has never done here. To make matters worse for the gardener, it seldom makes enough growth to provide cutting. That is the dark side; now for the bright. Its great recommendation is the clear yellow color of its flowers, something rare in pinks. It has to be admitted, however, that not many blooms are open at a time in its cluster head. Given a light soil, i.e., one that is perfectly drained and contains not too much nourishment, it is quite indestructible for two years, sending up a stem or two to a height of a foot or so, from a meager tuft of green leaves.

When I said there were several small pinks that were better from the gardener's standpoint than *D. glacialis*, *D. microlepis*, from high places in the mountains of Bulgaria, was one that I had in mind. Mrs. Wilder gave it a bad reputation

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when she wrote that it is "not one of the easy kinds," a reputation which it does not deserve, according to experience here. If it has perfect drainage, as it gets in my light soil, and some leaf mold to carry it through dry weather, it is no trouble at all. Then it makes tight little tufts, never over three or four inches across here, usually on the green side, though some are quite glaucous. From that tuft spring short stems (the whole plant is seldom over two inches high) bearing lovely pink flowers in June. It is often sold for D. freyni, a pink that I am not sure that I have ever seen. It is easily grown from seeds and from cuttings in early spring under glass.

[To be continued.]

ORCHARD LOANS.

Orchard rehabilitation loans are available to orchardists in Kansas, Missouri, Nebraska and Iowa whose trees were destroyed or damaged as a result of the extreme cold in November, 1940. The term "orchardist" is defined in the regulations as a person who at the time was engaged directly or through a tenant or agent in the production of fruit

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This Business of Ours

Reflections on the Progress and Problems of Nurserymen

By Ernest Heming

AGE OF TREES.

Here on the Eastern Shore of Maryland and Virginia is one of the few places in the United States where remnants of old colonial gardens are still to be found. I have paid particular attention to plants that have existed in these gardens from earlier times. Often one will see quite old and large specimens of usual and unusual plants, but upon inquiry into their history and age few are found to have existed even 100 years. Seeing on one old Maryland estate large beeches, white and red oaks four and more feet in diameter and Nordman firs ninety feet in height, I was disappointed to find they were all planted about sixty or seventy years ago by a plant enthusiast. I counted the rings of a white oak that had been cut down and corroborated the age. The only plants on the place that seemed to have existed longer than that were two Irish yews about thirty feet high and thirty feet in spread and some old English box hedging about eight feet each way.

On another place, at Accomac, Va., where there were Nordman firs and a Libocedrus decurrens about ninety feet high, two Irish yews about thirty-five feet high and a peculiar type English yew twenty feet in height and twenty feet in spread with a trunk twenty inches in diameter, I again found that most of the planting had been done by an enthusiast about the time of the Civil war.

On still another old estate known as the Governor Paca place, on Wye island, all that remained were some honey locusts about six feet in diameter and some European lindens about five feet in diameter. I was able to count the rings of one dead honey locust, and its age was around 120 years.

Other than an occasional oak, some English or dwarf and tree box, it is doubtful if any plant remains in these gardens that was planted in colonial times. Most of the "ageless" old specimens we come upon seem to

have been planted since the Civil war. Someday, however, I am going to have the opportunity to count the rings on one of the old American hollies that are found in this section; they seem to grow slowly.

So the next time a customer complains he'll never live to see a tree get large, you might tell him how quickly trees really do mature.

E. S. H.

FLOWERS IN THE HOME.

All of us know the proverb about the shoemaker's children being poorly shod, and our trade papers have mentioned often enough the value of landscaping one's own grounds, but I wonder if the same interest applies to our allied industry, the florists.

Not long ago I saw in a trade magazine of an entirely unallied industry the remark that the expenditure of even a dollar a week for cut flowers would give one value in pleasure well beyond the expenditure.

If we are really interested in plants, we should bring the wife home a bouquet now and then; we should even wear a flower in our buttonhole when we go out. Our office desk should have a regularly filled vase; it is easy enough to fill

it in spring, summer, fall and winter from the nursery. I sometimes feel that nurserymen are self-conscious and diffident about this phase of their business. I can see no real reason why they should be; any other industry would jump at the opportunity thus to display its wares. Just as nurserymen should be real flower enthusiasts, so should the home of a florist be landscaped just a little better than its neighbors.

E. S. H.

ULMUS PROCERA.

There is considerable confusion in the trade between Ulmus procera or, as it has frequently been listed, Ulmus campestris, and Ulmus carpinifolia or, as previously listed, Ulmus foliacea. Among the distinctions between these two species are the characteristic oval or oblong head and pubescent twigs of Ulmus procera and the more pyramidal or sometimes round-topped head and glabrous twigs of Ulmus carpinifolia, the smooth-leaved elm. Ulmus carpinifolia has less deeply furrowed bark and longer and often obovate leaves. Numerous varieties of Ulmus carpinifolia are listed and some of them, as Ulmus carpinifolia, the Wheatley elm, are more or less common in the trade.

Ulmus procera, the English elm, a native of England and some other regions of Europe, was early introduced into this country, where it is planted to a considerable extent in the east, but to a lesser extent in the midwest.

The English elm differs from the American elm in many respects. Its characteristic habit of growth is quite

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3 to 6 ins., s.		\$0.50	\$4.00			6 to 12 ins., s.		\$0.40	\$3.00
6 to 9 ins., s.		\$0.10	.70	6.00		12 to 18 ins., s.		.00	5.00
9 to 12 ins., s.		.15	1.00	8.00		18 to 24 ins., s.		\$0.15	1.00
12 to 15 ins., s.		.30	2.00	15.00		2 to 3 ft., s.		.20	1.25
15 to 18 ins., s.		.40	3.00	25.00		3 to 4 ft., s.		.30	2.00
									15.00
		CATALPA SPECIOSA. Western Catalpa.		Per 10 Per 100 Per 1000		CERCIS CANADENSIS. Redbud.		Per 10 Per 100 Per 1000	
6 to 12 ins., s.		\$0.50	\$4.00			4 to 6 ins., s.		\$0.50	\$4.00
12 to 18 ins., s.		.00	5.00			6 to 12 ins., s.		.70	5.00
18 to 24 ins., s.		\$0.10	.80	7.00		12 to 18 ins., s.		.15	1.00
2 to 3 ft., s.		.15	1.00	8.00		18 to 24 ins., s.		.20	1.25
						2 to 3 ft., s.		.30	2.00
						3 to 4 ft., s.		.40	3.00
						4 to 5 ft., s.		.60	4.50
						5 to 6 ft., s.		1.25	10.00
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Spiraea Trichocarpa,		
3 to 4 ft.	12.50	100.00
4 to 5 ft.	15.00	125.00
Spiraea Vanhouttei,		
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C., 6 to 8 ins.	4.00	30.00
C., 9 to 12 ins.	5.00	40.00
C., 12 to 15 ins.	6.00	50.00
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(Triple Red Honeysuckle)		
9 to 12 ins.	6.00	50.00
12 to 18 ins.	7.50	60.00
Lonicera Tatarica Rubra		
6 to 12 ins.	2.25	18.00
12 to 15 ins.	2.50	22.50
15 to 18 ins.	3.00	30.00
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6 to 9 ins.	2.50	20.00
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distinct, as it seldom exhibits the umbrella or vase-shaped forms of the American elm, but develops a more excurrent trunk. The leaves of the English elm are smaller, ranging from two to slightly more than three inches in length, while those of the American elm vary from three to six inches in length. The leaves of the English elm are dark green and usually remain on the plant longer in the fall than those of the American elm. The English elm suckers freely, a habit not especially characteristic of the American elm.

In its cultural requirements, the English elm does not differ greatly from the American elm. It has given some indication of being more drought-resistant and more tolerant to city conditions than the American elm, but its response in recent years during which drought conditions have existed in the midwest has made this statement somewhat questionable. This is especially true when it is used as a street tree in congested city districts. The most serious pests are the elm leaf beetle, the European elm scale and the cankerworms, all of which can be controlled by timely applications of proper spray materials.

The English elm becomes as large a tree as the American elm at maturity, but its growth is slower. It will be used as a street tree, on the lawn and as a park tree. Since it now seems to be highly resistant to the phloem necrosis disease, it may replace the American elm in sections where that disease is prevalent and where an elm is desired.

L. C. C.

FREIGHT RATES TO GO UP.

Increases in freight rates averaging six per cent, to be effective for the period of the war and six months thereafter, were approved by the Interstate Commerce Commission, March 2, instead of the ten per cent increase for which the railroads applied. The increased rates are expected to go into effect April 1.

A VOLUNTARY petition in bankruptcy was recently filed by Bernard Thomas Ehret, formerly doing business as Ehret Landscape Co., 914 Palmer avenue, Mamaroneck, N. Y., with liabilities of \$2,682 and assets of \$2,162 consisting of open accounts.

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Alnus glutinosa	.25	.85
Alnus maritima	.30	1.75
Arbutus excelsa, per 100 seeds, #3.00; per 1000 seeds, \$15.00.		
Aristoiochis tomentosa	.55	1.25
Aronia arbutifolia, d.b.	.35	1.25
Aurilia calendulacea, c.s., $\frac{1}{4}$ oz., 90c " schuppenbachii, c.s., $\frac{1}{4}$ oz., \$1.00		
Benzoin styrax	.40	1.25
Berberis thunbergii, c.s.	.70	2.50
Betula nigra, c.s.	.30	1.75
" populifolia	.35	1.25
Calycanthus floridus	.50	1.25
Caragana arborescens	.25	.80
Casuarina cunninghamiana	.75	1.00
" stricta, per oz., \$1.25		
Ceanothus americanus	.55	1.25
Celastrus scandens, c.s.	.30	2.75
Cercis canadensis	.30	.95
Chionanthus virginicus, c.s.	.45	1.50
Cladrastis lutea	.65	2.25
Cornus alternifolia, d.b.	.50	1.25
" florida, c.s., washed.	.45	1.50
" kousa, c.s.	.30	2.25
Corylus americana	.25	.85
" avellana	.25	.85
Cotoneaster horizontalis, c.s.	1.00	6.50
Crataegus coccinea, c.s.	.45	1.50
Cupressus arizonica	.30	2.25
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Epigaea repens, per $\frac{1}{4}$ oz., \$1.25		
Eucalyptus rostrata	1.00	6.50
" globulus	2.75	10.00
Fraxinus americana, d.b.	.65	2.25
" lanceolata	.45	1.25
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" veitchii	.45	1.50
Ginkgo biloba	.30	2.10
Hamamelis vernalis	.25	.75
Hicoria cordiformis	1.00	4.75
" pecana (Hardy Northern Natural)		
Ilex opaca, d.b.	.25	.75
Juniperus communis depressa, d.b.	.50	1.75
" horizontalis, d.b.	.45	1.25
Kelloggia paniculata	.35	1.25
Larix leptolepis	1.00	7.00
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" taratica, c.s.	.45	1.50
Nandina domestica, red, d.b.	.45	1.50
Nyssa aquatica	.40	1.40
Parkinsonia aculeata, c.s.	.35	2.00
Paulownia tomentosa	.70	2.50
Picea canadensis, White Spruce, $\frac{1}{4}$ oz.	1.00	6.00
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Platanus orientalis	.25	.75
Prunus avium, c.s.	.35	1.10
" serotina, c.s.	.35	1.25
" spinosa, d.b.	.45	1.00
Pseudotsuga douglasii glauca (Colo.)	1.45	5.25
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Rhododendron Cunninghamii, c.s.		
" hybrids mixed, c.s., $\frac{1}{4}$ oz., \$2.00		
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Rhodotypos kerrioides	.70	2.50
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" multiflora thornless, c.s.	.70	2.50
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" wichuraiana, c.s.	.75	2.75
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Diseases of Trees

Gleanings from the Latest Reports of Scientific Research

By Leo R. Tebon

ARSENICAL RESIDUES INJURE PEACH TREES.

Although it is well known that peach trees are sensitive to arsenical sprays and can be severely injured by them under certain conditions, it has been the general opinion of horticulturists that the residues of such sprays, reaching the ground, do not become toxic to the extent of producing any typical injury to the peach trees growing in the soil. That definite and recognizable injury to peach trees can occur as the result of the accumulation of arsenical residues in the soil has, however, been shown by Dr. Earle C. Blodgett, plant pathologist at the Idaho agricultural experiment station, as the result of investigations on obscure peach diseases conducted since 1936.

After five years of work in mapping and surveying orchards and in conducting confirmatory tests, Dr. Blodgett has found that in peach trees growing in arsenical-saturated soils a systemic arsenic poisoning occurs, which is expressed in the form of leaf spot symptoms and defoliation. He characterizes the appearance of injured trees as follows:

"There is no sign of damage until midsummer or later, when the foliage shows blotches or spots between the veins. The tissue becomes brown, dies and dries up, usually falling out and leaving a shot-holed appearance or, in extreme cases, a lace-leaf effect. The necrosis of tissue is usually marginal at first, finally working into the areas between the veins. The older leaves are affected first, and only tufts of young leaves may be left at the tops of branches. Affected leaves either fall off while still mostly green or may yellow and fall in August or early September. Sometimes trees may be entirely defoliated two months before normal leaf fall and the twig tissue dries back, although observations show that peach and apricot trees on old apple land generally make satisfactory terminal growth. In some cases defoliation takes place early enough

to prevent proper ripening of the crop and the small, bitter fruit is worthless."

The reference, just above, to peach and apricot trees on old apple land is the point that furnished the key to the discovery of arsenic poisoning. In the course of his studies of the obscure peach diseases, Dr. Blodgett found that one type of spotting was transmissible as a virus and that another, due to attack by the fungus *Coryneum Beijerinckii*, was controlled by Bordeaux and lime-sulphur sprays. The leaf spot-defoliation complex was, however, neither transmissible nor controllable by sprays, but appeared to be related to some adverse soil condition. Orchard mapping and surveys showed that it occurred consistently on peach trees growing on old apple land and suggested that the accumulation of spray residues might be the soil factor responsible for it. Support for this supposition was given by two affected apricot trees which, after being trans-

planted in 1937 to arsenic-free soil, showed no further injury.

Experimentally, systemic arsenic poisoning was first reproduced by the growing of young peach trees in pots filled with soil taken from beneath a badly affected tree. Typical symptoms appeared on these trees, but not on similar trees grown in soil with no previous orchard history. More conclusive evidence of systemic poisoning by arsenical residues was obtained by the simple expedient of adding known amounts of arsenate of lead to virgin soil and growing trees in the soils thus prepared. Young trees in these soils began to show typical symptoms in August, and the symptoms became more pronounced as the season advanced. In general, also, the severity of the symptoms exhibited was in proportion to the amount of arsenic added to the soil, some of the higher arsenic concentrations entirely preventing growth.

In the field, only rather young trees are known to be seriously affected by systemic arsenic poisoning. For this, there are a number of reasons. It is only within recent years that peach trees have been planted on the sites of removed apple orchards; at least, this is true in the region where the poisoning has been

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4 to 6 ins.	\$3.00	\$27.50
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C. foveolata

Large glossy leaf, orange and scarlet fall color, very hardy. Reaches 8 feet.

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observed. There is evidence, too, that as trees grow older they show less injury, possibly because their roots penetrate more deeply into the soil and reach out to areas of soil in which the arsenic concentration is lower. It is possible, also, that with time arsenical residues in the soil become less toxic, as a result of chemical change or leaching.

In orchards it has been observed that peach trees set in or near the old apple tree holes show more injury than those set between the original apple tree locations. Also, the type of soil and the management practices in various locations appear to exert great influence on the type and amount of injury that appears, and seasonal conditions cause large variations in degree of poisoning and the manifestation of poisoning symptoms.

L. R. T.

MINNESOTA NEWS.

The Twin Cities Nurserymen's Association held its monthly meeting March 11 in two parts: Dinner in the dining hall at University Farm, St. Paul, Minn., and a program at Como park. Motion pictures and other entertainment features, were arranged by J. Juhl, of the Hoyt Nursery Co., St. Paul.

Arrangements have been made to hold the 1942 convention of the Minnesota State Nurserymen's Association at the Radisson hotel, Minneapolis, December 8 and 9. It is planned to hold a summer meeting this year at Owatonna, near which are located several nurseries to be visited.

The state fair board premium committee has approved all the recommendations submitted to it. This includes the Twin Cities Nurserymen's Association exhibit, which will be devoted to evergreens recommended as being hardy in this section. All the specimens will be clearly labeled and will occupy a space about 12x25 feet in the Horticulture building. E. Johnson, of the Rose Hill Nursery, Minneapolis, is chairman of the work. The rose test committee of the Minnesota Rose Society will stage a large display of roses, together with charts illustrating culture and varieties. Because of complaints that the premium book did not appear soon enough for growers to plan for the state fair, the book will be issued one month earlier than formerly.

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Magnolia Alexandrina.....	3.50	32.50
Magnolia Halleana stellata.....	3.50	32.50
Magnolia Soulangiana.....	3.50	32.50
Magnolia Soulangiana nigra.....	3.50	32.50
Quercus Robur fastigiatum.....	4.00	37.50
Thuja occidentalis Douglasii spiralis.....	2.50	22.50
Thuja oc. elegantissima.....	2.50	22.50
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Thuja orientalis aurea nana.....	2.25	20.00
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Taxus media Brownii.....	3.00	27.50
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HESS' NURSERIES

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Mountain View, New Jersey

Prevent Damping-off

At this season of the year, when seedlings are being started for spring planting and the weather is likely to be dark, damping-off is one of the most prevalent greenhouse troubles. The disease often strikes unexpectedly and may level whole flats of tender seedlings as though they had been hit by a heavy rain. In milder form the disease results in a browning of roots, often followed by the shriveling of the stems of seedlings.

The name, damping-off, implies that its cause is soil wetness. In reality, it is due to specific soil-borne and seed-borne fungi, whose activity is accelerated by wetness. Hence preventive measures go back to seed and soil treatments.

Preemergence damping-off of seedlings is guarded against by coating the seeds with a layer of fungicide before planting. This protects them against the attack of soil molds. For reasons of convenience materials are usually applied as dusts. Small lots of seeds can be placed in a glass jar with a requisite amount of fungicide material. The jar is then shaken vigorously until the seeds are coated. In the case of large amounts of seeds a barrel can be rigged with a dust-tight end. Organic mercuries—red copper oxide, zinc oxide and tetrachlor benzoquinone—have to date worked out best in seed treatment. A small pinch should be used for each packet or one-half teaspoonful per pound of seeds. It is safe to use the excess dusting material over again for about as long as it lasts.

Seed treatment for damping-off is not enough and should be accompanied by soil sterilization, as most of the organisms causing the trouble are soil residents. Soil may be freed of organisms by pasteurization processes, such as steaming or baking, or by formaldehyde gas, dust or drench. However, soil once sterilized often shows more damping-off, if the fungus gets back in, than if it had not been treated at all. Spraying seedlings as they emerge from the soil is therefore considered the most satisfactory treatment. Red copper oxide, at the rate of one ounce to three gallons of water or one pound to fifty gallons, is advocated. Three gallons should take care of about two

dozen flats or fifty square feet of bench space. The important consideration in using red copper oxide spray is to be sure that the spray covers the entire stem of each seedling and runs down into the soil.

Besides soil and seed treatments, clean culture is an important factor in preventing damping-off in the greenhouse. At least once a year all plants should be removed and the benches, beds, sash bars and floors sprayed with formaldehyde or at least with one per cent bluestone water. Plant refuse or manure should not be added to the compost pile if this provides soil for benches and flats in which seedlings are grown.

Ample light and ventilation help produce strong seedlings and at the same time discourage the growth of fungi. Therefore they should be given careful consideration in evading damping-off troubles. Watering and drainage are also important. Flats should be level and on a bed of cinders or gravel, or on boards. Watering is done best with a fine mist spray.

MICHIGAN SUMMER MEET.

It is announced by President Harold Paul that the summer meeting of the Michigan Association of Nurserymen will be held at Michigan State College, East Lansing, July 29 and 30.

The meetings will be held at the horticultural building on the campus, and the dinner is planned for July 29. The faculty of Michigan State College is joining with the association in preparing an interesting program.

It is expected that a large attendance of our own members and out-of-state nurserymen will result. Further details will be announced at a later date.

Ralph I. Coryell, Sec'y.

REPLACES BURLAP.

Those nurserymen who have not been so fortunate as to lay in a sufficient supply of burlap, now rapidly becoming unobtainable, are instead using "Cottonette" squares for balling plants. The latter are made in this country from American cotton and are especially useful for balling small plants, although sizes are available up to three feet square.

Spring 1942 Wholesale Planting List

Northern-grown Seedling and Transplant Stock Grown from Certified Seed

PITCH PINE

Excellent hard pine timber.

Per 100 Per 1000

2-yr. adlgs. (2-0), 4 to 9 ins.....	\$1.00	\$ 0.00
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PONDEROSA PINE

Per 100 Per 1000

2-yr. adlgs. (2-0), 4 to 6 ins.....	\$2.40	\$12.00
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SCOTCH PINE

Per 100 Per 1000

2-yr. adlgs. (2-0), 3 to 8 ins.....	\$2.00	\$10.00
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SPECIAL SCOTCH PINE

Per 100 Per 1000

Grown from certified seed—this seed not obtainable today.		
---	--	--

3-yr. adlgs. (3-0), 6 to 14 ins.....	\$4.00	\$20.00
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3-yr. trans. (3-1), 4 to 10 ins.....	5.00	25.00
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AUSTRIAN PINE

Per 100 Per 1000

Grown from certified seed—this seed not obtainable today.		
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4-yr. trans. (3-2), 6 to 12 ins.....	\$ 8.00	\$40.00
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WHITE PINE

Excellent timber and Christmas trees.

2-yr. adlgs. (2-0), 2 to 3 ins.....	\$1.70	\$ 8.50
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3-yr. adlgs. (3-0), 4 to 6 ins.....	2.40	12.00
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MUGHO PINE

Per 100 Per 1000

This seed not obtainable today.		
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4-yr. adlgs. (4-0), 6 to 9 ins.....	\$ 6.00	\$30.00
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4-yr. trans. (3-1), 3 to 6 ins.....	8.00	40.00
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AMERICAN RED PINE

Per 100 Per 1000

One of the best for both timber and Christmas trees.		
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2-yr. adlgs. (2-0), 2 to 3 ins.....	\$ 1.00	\$ 5.00
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BANKS PINE

Per 100 Per 1000

Timber, also makes good Christmas tree if pruned.		
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2-yr. adlgs. (2-0), 4 to 10 ins.....	\$1.00	\$ 8.00
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NORWAY SPRUCE

Per 100 Per 1000

This seed not obtainable today.		
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2-yr. adlgs. (2-0), 3 to 6 ins.....	\$ 2.50	\$12.50
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3-yr. trans. (2-1), 3 to 6 ins.....	5.00	25.00
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5-yr. trans. (3-2), 6 to 18 ins.....	20.00	100.00
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BLACK HILLS SPRUCE

Per 100 Per 1000

2-yr. adlgs. (2-0), 1 to 2 ins.....	\$3.00	\$15.00
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WHITE SPRUCE

Per 100 Per 1000

This seed not obtainable today.		
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2-yr. adlgs. (2-0), 3 to 6 ins.....	\$ 2.50	\$12.50
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4-yr. trans. (3-1), 5 to 12 ins.....	5.00	25.00
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6-yr. trans. (3-3), 6 to 16 ins.....	15.00	100.00
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COLORADO BLUE SPRUCE

Per 100 Per 1000

2-yr. adlgs. (2-0), 2 to 4 ins.....	\$2.00	\$10.00
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SPECIAL COLORADO BLUE SPRUCE

Seed hand packed from blue spruce.

2-yr. adlgs. (2-0), 2 to 4 ins.....	\$2.50	\$12.50
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3-yr. adlgs. (3-0), 2 to 5 ins.....	3.00	15.00
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4-yr. trans. (3-2), 3 to 8 ins.....	8.00
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ENGELMANN BLUE SPRUCE

Per 100 Per 1000

5-yr. trans. (3-2), 5 to 10 ins.....	\$10.00	\$50.00
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CANADIAN HEMLOCK

Per 100 Per 1000

5-yr. trans. (3-2), 6 to 12 ins.....	\$16.00	\$80.00
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DOUGLAS FIR

Per 100 Per 1000

2-yr. adlgs. (2-0), 2 to 3 ins.....	\$2.00	\$10.00
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BALSAM FIR

Per 100 Per 1000

2-yr. adlgs. (2-0), 1 to 3 ins.....	\$3.00	\$15.00
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EUROPEAN LARCH

Per 100 Per 1000

This seed not obtainable today.		
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2-yr. adlgs. (2-0), 5 to 12 ins.....	\$2.40	\$12.00
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PYRAMIDAL ARBORVITAE

Per 100 Per 1000

2-yr. adlgs. (2-0), 2 to 3 ins.....	\$ 3.00	\$15.00
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4-yr. trans. (3-2), 4 to 9 ins.....	10.00
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GLOBE ARBORVITAE

(True Globe)

3-yr. trans. (2-1), 3 to 5 ins.....	\$20.00	\$100.00
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AMERICAN ARBORVITAE

Per 100 Per 1000

2-yr. adlgs. (2-0), 2 to 3 ins.....	\$2.00	\$10.00
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4-yr. trans. (3-1), 5 to 14 ins.....	4.00	20.00
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The Foresighted Nurseryman Will Plant

Trees Now.

Keep in mind that young trees planted now begin to reach market value from four to eight years from today. Today is disturbed—build now for security in the reconstruction period after the war.

Write for Complete Circular and Special

Christmas Tree Bulletin.

MUSSER FORESTS, INC.

INDIANA, PA.

QUALITY NURSERY STOCK

300 Acres of Thrifty Young Evergreens—Grown Right and Priced Right

Millions of the Best Plants you ever saw raring to go



Taxus Cupidata Capitata—Upright Yew
Leaded stock, can be certified for Japanese Beetle.

BERBERIS Thunbergi Barberry 100 1000 10,000 per 1000

2-yr. untrans.		\$3.00	\$15.00	\$8.00
9 to 12 ins., 2 br. and up.....		4.00	20.00	15.00
12 to 15 ins., 2 br. and up.....		4.00	25.00	20.00
15 to 18 ins. 3 br. and up.....				

15 to 18 ins., 3 br. and up.....	4.00	25.00	20.00
3-yr. untrans.			
15 to 18 ins., 3 br. and up.....	5.00	25.00	20.00
18 to 24 ins., 3 br. and up.....	6.00	30.00	25.00
3-yr. trans.			
18 to 24 ins.....	15.00	80.00	55.00
2 to 3 ft.....	20.00	120.00	80.00

LIGUSTRUM Ovalifolium		California Privet
2-yr. extra heavy		
12 to 18 ins.	\$4.00	\$25.00
18 to 24 ins.	5.00	35.00
2 to 3 ft.	6.00	45.00

	10 rate	100 rate
BERBERIS Atropurpurea 24 ins. B&B	Red Barberry	
	\$0.85	\$0.75

<i>Tsuga Canadensis</i>	Can.	Hemlock
30 ins., heavy, B&B.....	\$1.10	\$1.00
36 ins., heavy, B&B.....	1.35	1.25
3 to 4 ft. heavy, B&B.....	1.60	1.50

PICEA Pungens	Colorado Blue Spruce
2 ft., B&B.....	\$1.00 \$0.90
3 ft., B&B.....	1.20 1.10

4 ft., B&B.	1.60	1.50
5 ft., B&B.	2.10	2.00
JUNIPERUS Chinensis Pfitzeriana	Pfitzer	Jun.
15 to 18 ins., B&B.	\$1.20	\$1.10
18 to 24 ins., B&B.	1.45	1.35

2 to 3 ft., B&B.....	1.75	
JUNIPERUS <i>Excelsa Stricta</i>	Greek Jun.	
15 to 18 ins., B&B.....	\$1.00	\$0.90
18 to 24 ins., B&B.....	1.10	1.00

18 to 24 ins., B&B.....	1.10	1.00
24 to 30 ins., B&B.....	1.20	1.10
30 to 36 ins., B&B.....	1.30	1.20

<i>JUNIPERUS</i> C. <i>Hibernica</i>	Irish Juniper
24 to 30 ins., B&B.	\$1.00 \$0.90
<i>THUJA</i> <i>Occidentalis Pyramidalis</i>	Pyramid Arb.
2 ft. B&B	\$1.20 \$1.10

THUJA Occidentalis	10 rate	100 rate
3 ft., B&B.....	\$1.10	\$1.00
4 ft. B&B.....	1.35	1.25

THUJA Occidentalis Globosa	Globe Arb.
12 to 15 ins., B&B.....	\$1.00 \$0.90
15 to 18 ins., B&B.....	1.10 1.00
18 to 24 ins., B&B.....	1.20 1.10

TAXUS <i>Cuspidata Capitata</i>	Upright Yew
18 to 24 ins., B&B.....	\$1.30 \$1.20
24 to 30 ins., B&B.....	1.55 1.45
30 to 36 ins., B&B.....	2.25

30 to 36 ins., B&B.	2.05	1.95
TAXUS Cuspidata	Spreading Yew	
15 to 18 ins., B&B.	\$1.30	\$1.20
18 to 24 ins., B&B.	1.55	1.45
24 to 30 ins., B&B.	1.80	1.70

RETINOSPORA	Plumosa	Plumosa
18 to 24 ins., B&B.....	\$1.10	\$1.00
2 to 3 ft., B&B.....	1.20	1.10

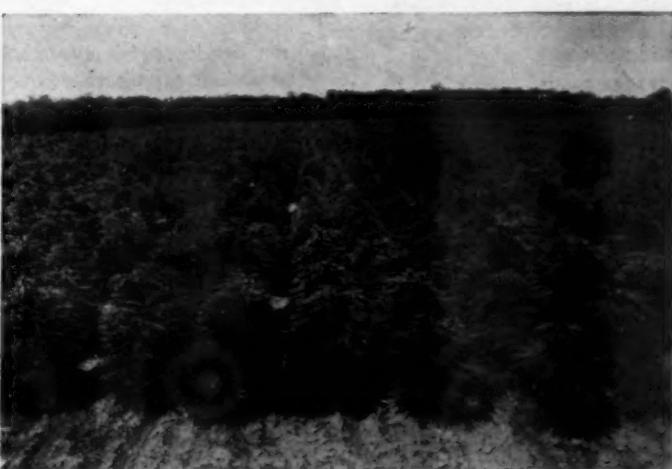
3 to 4 ft., B&B.	1.45	1.35
RETINOSPORIA <i>Plumosa Aurea</i>	<i>Plumosa Aurea</i>	
18 to 24 ins., B&B.	\$1.10	\$1.00
2 to 2 1/2 ft. B&B.	1.45	1.35

ACER	Platanoides	Norway	Maple
1½-in.	12 to 14 ft.	\$1.60	\$1.50
2 -in.	12 to 14 ft.	2.10	2.00

CERTIFIED STOCK

We can supply a BEETLE tag with the following stock:

BARBERRY	all sizes
PRIVET	all sizes
HEMLOCK , 30 ins.	\$1.10
36 ins.	1.35
COLO. Blue Spruce , 18 to 24 ins.	1.00
STRICTA Juniper , 15 to 18 ins.	1.00
AMERICAN Arborvitae , 3 ft.	1.10
GLOBE Arborvitae , 12 to 15 ins.	1.00
TAXUS Capitata , 18 to 24 ins.	1.30
24 to 30 ins.	1.55
30 to 36 ins.	2.05
TAXUS Cuspidata , 12 to 15 ins.	1.10
30 ins.	2.50
36 ins.	3.00



Tsuga Canadensis—Hemlock
30 to 36 ins.—You can't beat 'em.

GARDNER'S NURSERIES - - Rocky Hill, Conn.

For the American Holly

I am glad to see that in your January 15 number Ernest Hemming has a good word to say for our American holly, *Ilex opaca*. It is inconceivable to me also that our nurserymen have not taken more interest in this, our most beautiful broad-leaved, hardy, native, evergreen tree. As Mr. Hemming says, we plant all kinds of exotic plants, ignoring many of our far more beautiful natives.

On a recent visit to Baltimore, Md., right in the heart of the holly section of the eastern seaboard, I hardly saw a really good holly tree, either in the parks or on private places; of course, there may be some, but they are conspicuous by their absence. In a city like Baltimore there should be thousands of hollies used.

I realize that among nurserymen the holly has had a bad name as to both hardiness and transplanting qualities. However, as we come to know the tree better, the first of these objections can be overcome by the use of stock from northern sources. Now that we know more about its transplanting requirements, there need be no serious losses on that account. So far as hardiness is concerned, apparently our northern trees will stand sub-zero conditions and thrive. I know of several trees in Massachusetts that have been through winters of 30 degrees below zero and are still going strong.

Undoubtedly one of the chief limitations to the popularity of the holly has been that nurserymen have sold trees produced from seeds the origin of which was not known, and such trees have as a rule proved unsatisfactory, particularly under northern conditions. Then, again, the matters of soils and feeding have been little understood, so that purchasers were not instructed in making proper soil conditions.

To the nurseryman, holly has been holly. While a few have recognized that there are differences in type and that some of these variations have been given names, yet most nurserymen have sold holly with no regard to its particular uses. Those who have worked with holly

quickly recognized the fact that there were great variations in it. All of our natives being seedlings, hardly any two trees are alike, and there is endless variation in the fruit and in the foliage. In Europe over seventy-five variations of *Ilex aquifolium* are recognized, each having some special characteristic. It would seem from this that much work might be done on *Ilex opaca*, in order to bring out its best variations.

I cannot just agree with Mr. Hemming on the question of producing hollies from seeds; that is, if one wants to get really good hollies. I don't even believe that seedlings make good hedge plants, for if there is any place where you want all of the plants of one type, it is in a hedge, and you certainly want them all of one gender. If you plant unselected seedlings in a hedge, you will get all types of plants, with great variation in character, including poor and good leaf, compact and open types, and, above all, unless you wait until sex has been determined, you will have fruiting and nonfruiting plants all mixed up, and then also you will get all shades of color in the fruit. Anyone who has seen the wonderful holly hedges of England, even though these are of another species, will realize the necessity of having a definite type to start with.

There is no reason why we should not develop our holly with its many variations to fit each of our particu-

lar needs. For Christmas greens at least two types are desirable, the wreath holly with the compact bunches, and the spray type with its fruit more openly spaced on the branches. For landscape planting there are several types necessary; the tall rather columnar tree often fits in places where a branching tree would be out of place and vice versa; so we need these two, both of which will eventually grow into large specimens. Then there is a place for the more bushy spreading tree, as well as for the hedge type. The way the tree carries its fruit, and the color of the fruit will often determine its use. Then there is a field, as yet hardly dreamed of, for the compact well fruited tree to be used as a pot or tub plant for Christmas. These are only some of the possible uses for holly, but each requires a special type which must be recognized, selected and propagated for its particular use.

I have been much interested in our American holly for years and, living as I do in the region of its northern limit, I have been able to select and classify many variations and to propagate these. My interest has been perhaps more from a conservation point of view than from that of a nurseryman, because I have realized that if something were not done soon to create an interest in planting this beautiful native on a large scale it would disappear at least from our northern woods. Fires and vandals have nearly exterminated this once-common tree.

In this classification trees are studied and selected for their particular value and uses, so that in the

CHOICE EVERGREENS

	Per 10	Per 100
<i>Juniperus Pfitzeriana</i> , 15 to 18 ins.....	\$14.00	\$120.00
<i>Juniperus Pfitzeriana</i> , 18 to 24 ins.....	18.50	165.00
<i>Juniperus Ketleeri</i> , 2½ to 3 ft.....	25.00	225.00
<i>Juniperus Ketleeri</i> , 3 to 3½ ft.....	27.50	250.00
<i>Juniperus Hill Dundee</i> , 2½ to 3 ft.....	25.00	235.00
<i>Juniperus Hill Dundee</i> , 3 to 3½ ft.....	27.50	260.00
<i>Juniperus Hill Dundee</i> , 3½ to 4 ft.....	35.00	325.00
<i>Picea Pungens Kosteriana</i> , 3 to 3½ ft.....	45.00	425.00
<i>Picea Pungens Kosteriana</i> , 3½ to 4 ft.....	57.50	550.00
<i>Picea Pungens Kosteriana</i> , 4 to 4½ ft.....	62.50	600.00
<i>Thuja Occidentalis Pyramidalis</i> , 18 to 24 ins.....	10.00	90.00
<i>Thuja Occidentalis Pyramidalis</i> , 24 to 30 ins.....	12.50	115.00

All choice, select xxx B&B stock. Packing at cost.

Complete price list sent upon request.

HOLTON & HUNKEL CO.

797 N. Milwaukee St.

Milwaukee, Wis.

future trees can be supplied for just what a customer may want. I am sure that we are going to grow hollies in orchards to supply the Christmas market, and for this a special tree is necessary, if we are to compete with the *Ilex aquifolium* sprays sent from the Pacific northwest. Fortunately we have selections that promise to do this, and it is now only a matter of growing them in sufficient quantities.

In the matter of propagation Mr. Hemming speaks of seedlings and admits that it takes five years after the seedlings are up to establish their sex. This is a long time to wait when one can have plants with fruit on them from cuttings or grafts well under that period. Here again, variety makes a difference, as some types will bear fruit much earlier than others, often fruiting the first year after being rooted. I can really see no reason in growing hollies from seeds, except for use as stocks, for if we are to sell hollies we must assure our customers that they will get certain results. Our hollies should be named and their characteristics known, just as our fruit trees are named and known.

Wilfred Wheeler,
Falmouth, Mass.

CENTRAL PLANT BOARD.

The eighteenth annual meeting of the Central Plant Board will be held March 24 and 25 at Urbana, Ill., in the Union building of the University of Illinois. Important on the program, according to Secretary Paul T. Ulman, will be a complete discussion of the report of the uniform regulations committee and a full discussion of the regulatory officials' duties in the victory program.

Other topics before the meeting will be nursery stock inspection requirements of western states, priorities as to insecticides and fungicides, regulatory appropriations during a war, removal or maintaining quarantines under war conditions, inspection of federal nurseries by officials of the states where they are located, digging time inspection of tree and bramble fruits, and regional plant board cooperation with the Council of State Governments.

THE name of Barnes Nurseries has been changed to Arcadia Gardens Co., at the same address, Box 343, Kansas City, Mo.

GO-WEST WEEVIL BAIT



Packed in 50 lb. Bags

KILLS TAXUS WEEVILS and other weevils which infest nursery stock. Also effective for Cutworms, Earwigs, Sow Bugs, Snails, Slugs, Grasshoppers and similar leaf-eating pests.

Deadly • Efficient • Economical

A safe, sure, easy way to protect flowering plants, ornamentals, vegetables, shrubs and trees against many forms of destructive leaf-eaters. Simple to apply; effective rain or shine. A single application is usually sufficient. Costs little; saves much. Information on request.

AGRICULTURAL LABORATORIES, Inc.
1150 Clinton Ave. Columbus, Ohio

Increase Plant Yield With Less Labor

USE
ARIENS TILLER



3 models
to meet
all your
requirements

For every tillage and cultivation job you'll save hours of labor. In ONE operation you can prepare a completely pulverized level seed bed, thoroughly aerated, with weeds and insect life destroyed—mulching, root pruning, complete cultivation are easy for the Ariens Renovator attachment for Bermudagrass and rebuilding lawns. Operates easily in small space. Write for details and name of nearest distributor so you can arrange for demonstration.

ARIENS CO. Box 710,

BRILLION, WISCONSIN

ARIENS-TILLER



THE AMERICAN TILLAGE COMBINE



A KEMP size for
you, from 2 to 20
cu. yds. per hour
capacities—priced
from \$75.00.

Compost-Making the "KEMP" Way Saves Valuable Sod & Manure

Compost materials—lumps of sod and manure are wasted by hand-sifting. Don't waste these valuable materials in your compost. Use the KEMP Power Soil Shredder to thoroughly and completely shred and mix these lumps throughout the soil to produce a rich, well aerated compost.

You'll grow healthier, more sizable plants and at the same time cut your present hand-compost-making-time and labor from 50% to 75% because the KEMP mixes all soils in one quick operation to any desired texture.

For complete story on the KEMP Power Soil Shredder write KEMP MANUFACTURING CO., Dept. AN-322, 1027 E. 20th St., Erie, Pa.

KEMP Power SOIL SHREDDERS

Please Mention AMERICAN NURSERYMAN When Writing Advertisers.

Maryland Meeting

The Maryland Nurserymen's Association, at its meeting at College Park February 25, elected the following officers for the ensuing year: President, E. Sam Hemming, Easton; first vice-president, Gladstone Keir, Pikesville; second vice-president, Homer Kemp, Princess Anne; treasurer, Carville G. Akehurst, Fullerton; secretary, Daniel B. Stoner, Westminster; educational secretary, George S. Langford, College Park.

On the executive committee were chosen M. G. Coplin, Rockville; Guy M. Stricklen, Towson; Daniel B. Stoner, Westminster; H. B. Cannon, Chestertown; Leamon G. Tingle, Pittsville; Dan F. Shipley, Towson; Hale Harrison, Berlin, and Mr. Gude, Rockville.

E. Sam Hemming was not in attendance because of a death in the family. Therefore, Gladstone Keir presided at the business meeting after the election of officers. A rising vote of thanks was given to the retiring president, Dan Shipley, for his excellent leadership during the past year. J. Hammond Brandt, who was recently called into the army, was succeeded as secretary by Daniel B. Stoner.

The meeting was held in conjunction with the annual short course at the University of Maryland, the excellent program of which drew the largest attendance yet.

After registration, February 24, a welcoming address by Dr. H. C. Byrd, president of the university, stressed the importance of the nurserymen's being organized and unified during the coming difficulties they are to meet. Dr. C. H. Mahoney, chairman of the department of horticulture, gave his greetings and extended the facilities of the horticulture building to the nurserymen.

The treasurer, Carville G. Akehurst, gave an excellent report, showing the treasury in good condition.

H. B. Cannon, Chestertown, reported on the need in Maryland for a mechanic's lien law for nurserymen. He mentioned states that already have such a law.

W. C. Price reported on the progress being made by the committee for an arboretum at the University of Maryland.

Homer S. Kemp talked on "The Burden of Out-of-state Licenses and Fees on the Shipper of Nursery Stock." He went into great detail to give examples of the cost, restrictions and red tape that the mail-order nurseries encounter.

After luncheon Dr. T. B. Symons, director of the extension service, spoke on "The Nursery Business and War," giving advise on how to carry on business at the present time, what to look forward to and how to approach this problem from a general standpoint.

One of the high lights of the short course was the lecture, with lantern slides, given by Prof. M. E. Bottomley, University of Cincinnati, on the subject, "Design—The Real Factor in Gardening." His slides on design proved most interesting and brought a great deal of comment from those in attendance. Some believed that he

DOGWOOD SPECIALS

Corus florida, seedlings, 8 to 12 ins. up to 24 to 30 ins.; larger field plants, up to 10 ft.
Corus florida rubra, pink dogwood, field plants, 12 to 18 ins. up to large specimens.
Corus florida plena, double, field plants, 12 to 15 ins., 15 to 18 ins., 18 to 24 ins. and up.
Corus florida pendula, weeping, field plants, 18 to 24 ins., 24 to 30 ins. and up.
Corus florida weicheli, tricolored foliage, field plants, 12 to 15 ins., 15 to 18 ins.
Flowering Crabs, *Flowering Cherries*, *Lilacs*, *Oaks*, *Crateagus cordata*, *Azaleas* and many other interesting plants and trees. Our wholesale catalogue at your request.

KINGSVILLE NURSERIES, Inc.

H. J. Hohman

Kingsville, Md.

de WILDE'S RHODO - LAKE NURSERIES

SHILOH, N. J.

RHODODENDRONS,
AZALEAS
AND OTHER
ERICACEOUS PLANTS

STOCK WANTED

10,000 or more *Syringa Vulgaris* (common Lilac) from 1941 seed bed. Submit sample with lowest cash price.

C. J. VAN BOURGONDIE, INC.
Babylon, L. I., N. Y.

was a little radical in his suggestions. Nevertheless, he brought about much thought and discussion on the subject of design.

Miss Dorothy E. Hansell, editor of the Gardeners' Chronicle of America, gave an interesting talk on ornamental gardening and the victory garden program. Her main point was to discourage the unnecessary use of vitally important vegetable seeds and to discourage the spading up of existing ornamental garden beds to be replaced with vegetable beds.

February 25, the program was opened by A. Lee Schrader, department of horticulture, who showed slides on the subject, "Seeing the Fruit Regions of These United States." These slides were made on travels by Mr. Schrader to the different fruit sections of the country.

Miss Edith Stokes Haines, Fort Washington, Pa., talked on the herb garden. She brought out the fact that

LINERS

From our general list of catalogued liners. Send for copy.

	Per 100	Per 1000
<i>Abies Douglasii</i>	\$10.00	\$85.00
5-yr. T. 9 to 12 ins.		
<i>Abies Veitchii</i>	10.00	90.00
5-yr. T. 8 to 12 ins.		
<i>Juniperus Communis Depressa Plumosa</i>	14.00	110.00
2-yr. T. 9 to 12 ins.		
<i>Juniperus Communis Hibernica</i>	15.00	120.00
2-yr. T. 12 to 18 ins.		
<i>Juniperus Communis Hibernica Fastigiata</i>	15.00	120.00
2-yr. T. 12 to 18 ins.		
<i>Juniperus Communis Suceana</i>	17.50	140.00
2-yr. T. 12 to 18 ins.		
<i>Picea Excelsa</i>	8.00	65.00
3-yr. T. 12 to 15 ins.		
<i>Pinus Resinosa</i>	4.50	35.00
4-yr. T. 8 to 12 ins.		
<i>Pinus strobus</i>	5.00	40.00
4-yr. T. 6 to 12 ins.		
<i>Retinopora Decussata</i>	12.00	100.00
2-yr. T. 6 to 9 ins.		
<i>Retinopora Plumosa Aurea</i>	16.00	140.00
2-yr. T. 9 to 12 ins.		
<i>Taxus Cupidata Spreading</i>	16.50	145.00
2-yr. T. 8 to 12 ins.		
<i>Thuya Orientalis</i>	11.00	90.00
2-yr. T. 12 to 18 ins.		
<i>Thuya Orientalis Compacta</i>	14.00	120.00
2-yr. T. 9 to 10 ins.		
<i>Tsuga Canadensis</i>	15.00	135.00
T. 8 to 10 ins.		
<i>Magnolia Glauca</i>	12.50	100.00
3-yr. T. 12 to 14 ins.		
<i>Castanea Sativa</i>	8.00	65.00
2-6 to 12 ins.		
<i>Azalea Mollis</i>	8.00	65.00
T. 6 to 9 ins.		
<i>Berberis Thunbergii Atropurpurea</i>	10.00	85.00
2-yr. S. 12 to 18 ins.		
<i>Berberis Thunbergii Upright Strain</i> , from seeds.	3.00	25.00
S. 6 to 10 ins.	1.50	9.00

FAIRVIEW EVERGREEN NURSERIES

FAIRVIEW, PA.

BOBBINK & ATKINS

Rhododendron Hybrids

Climbing Vines

Azalea Mollis

Cotoneasters

East Rutherford, New Jersey

RHODODENDRON HYBRIDS.

Grafted, hardy varieties only.

AZALEA KAEMPFERI HYBRIDS.

Named varieties; the hardiest of all Azaleas for landscape work.

KOSTER'S BLUE SPRUCE. Perfectly shaped; transplanted.**EUROPEAN BEECH.** Fine specimens. Also fastigiata, pendula, Rivers.**LILACS.** The best collection of choice varieties.**FLOWERING JAPANESE CHERRIES.** Three outstanding varieties.**CRAB APPLES.** Young, thrifty plants, selected varieties.**LABURNUM VOSSI.** Grown in standard form.**BAGATELLE NURSERY**

P. O. Huntington Station, L. I., N. Y.

P. M. Koster, Mgr.

Please make request for our catalogue on business stationery.

LINING-OUT STOCK

Tsuga canadensis, Abies balsamea, Picea rubra, Pinus Strobus, Acer rubrum and saccharum; Betula lenta, lutea, papyrifera and populifolia; Fagus americana, Fraxinus americana, Prunus pennsylvanica and serotina and many other trees and shrubs.

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AZALEAS FROM 2½-in. POTS

Kurume, Coral Bells and Hinodegirl. India, 35 varieties. Kaempferi. \$8.00 per 100; \$75.00 per 1000.

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Augusta, Ga.

DAPHNE CNEORUM

*7 to 9 ins., \$4.00 per 10. \$35.00 per 100.
9 to 12 ins., 5.00 per 10. 46.00 per 100.
Transplants from layers and divisions.
\$6.00 per 100. \$46.00 per 1000.*

Packing at cost.

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of PRINCETON, N. J.

SUPERIOR**Hardy Ornamentals****PRIVET and BERBERIS**

Splendid Stock

Write for Special Quotations

LESTER C. LOVETT
MILFORD DELAWARE

there may be an opening for florists and nurserymen in the commercial growing of herbs for drug and extract houses.

R. G. Steinmeyer, professor of political science, took his audience back to the beginning of the Japanese empire and brought it up to the present situation, giving information that gave a better understanding of the situation that led up to Pearl Harbor.

R. R. Cunningham, of John H. Dulaney & Son, Fruitland, Md., in his talk on "Common Sense Salesmanship for Nurserymen," displayed a unique and interesting way of presenting his information.

Miss Mildred Jones, of the J. F. Jones Nursery, Lancaster, Pa., gave an interesting lantern slide lecture on "Nut Trees for the Home Garden." She discussed the possibilities of some of our hardy nut trees for landscape use in the home garden.

The closing discussion was on the correct method of pruning shrubs. There were samples on hand in the classroom to work on, and the results proved most interesting.

Daniel B. Stoner, Sec'y.

CORNELL CONFERENCE.

About twenty nursery firms were represented at the conference held last month at Cornell University, Ithaca, N. Y., and the number of persons attending the banquet reached over fifty.

Members of the staff of the department of floriculture and ornamental horticulture discussed new developments in seed storage and germination, vegetative propagation, research on hardiness of woody ornamentals and other topics. Each person present received a 20-page mimeographed summary of results of experiments which have been made or are now in progress at Cornell.

C. F. Wedell, of the State Institute of Agriculture, Farmingdale, L. I., spoke on the subject of protective concealment. C. E. Love, of the International Business Machines Corp., gave an interesting and stimulating talk on salesmanship.

Reports on the activities of the department in the victory garden campaign were given by Prof. Donald Bushey. The progress of the Cornell arboretum was reported by Dr. Ralph W. Curtis. Two talks on design were given by Prof. Joseph P. Porter.

PERENNIAL NOVELTIES

Here are a few of the many outstanding newer Hardy Herbaceous Plants featured in our new Trade List. A copy will be sent free on request.

*Aethionema Warley Rose, Armeria Bee's Ruby.**CHOICE HARDY ASTERS, Erikartii, Blueplume, Violetta, Mt. Everest, H. Pink.**NEW CUSHION MUMS, Little Bob, Santa Claus, Dahlia-flowered Mum.**SHASTA DAISIES—True Stock, G. Marconi, Beaufit Nivelleo, Chiffon, Esther Reed, Geum Wilton Ruby, Campanula Persicifolia Blue Spire, Heuchera Queen of Hearts, Oenothera Illumination; Phlox Salmon Beauty, Pentstemon Garnet, Silene Alpestris Fl. Pl., Hellanthemum Double Yellow.**CHRYSANTHEMUMS, Mrs. P. S. DuPont III, Eugene A. Wender and many other outstanding varieties, including many novelties.**GORGEOUS DIANTHUS (Pinks), Bobby, Little Joe, Silver Mine, Rose Unique, Meg Gardner, Tiny Rubies, Iberis Little Cushion.*

Oriental Peppermint.
Many varieties from 2-inch pots for lining out.
Special Offer: You may select 5 plants each of any 50 varieties shown here, 100 plants for \$15.00.

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1893

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Write for trade list.

THE WESTMINSTER NURSERIES

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NORTHERN COLLECTED EVERGREENS

Hardy, well rooted. *Abies balsamea, Thuja occidentalis, Tsuga canadensis.*

Priced per 1000. Cash.

2 to 6 ins....	8.50	9 to 12 ins....	14.50
6 to 8 ins....	10.00	12 to 18 ins. and larger	priced on request.

Satisfaction guaranteed.

WILLIAM CROSBY HORSFORD, Charlotte, Vt.

FRENCH LILACS FLOWERING CRABS

In a wide assortment of varieties. Write for Complete Wholesale List.

BRYANT'S NURSERIES

Princeton, Illinois

Hardy Pecan Trees. Grafted Black Walnut. Heartnut Trees. Budded varieties of native Persimmon. Sweet Cherry Trees.

Write for price list.

44 years growing trees.

J. F. JONES NURSERIES Dept. T-142 Lancaster, Pa.

**KOSTER COMPANY, INC.**

Lining-out Stock

of Top Quality

BRIDGETON, N. J.

Write for catalogue.

Battle Beetles

JAP BEETLE TRAPPING.

With a list of traps set and the number of Japanese beetles caught in the past eleven years outside the present regulated area, the federal bureau of entomology and plant quarantine has just issued a statement summarizing the results of the 1941 trapping.

In some localities, notably Florida, where beetles were trapped during 1940, none were found in 1941. In a number of locations where beetles had been trapped in 1940 and where soil treatments had been applied in advance of the 1941 season, the beetles collected were fewer even though more traps were operated. "Such conditions prevail in most of the areas where soil treating has been carried on," reads the statement, "and illustrate the benefits of the cooperative effort to use this procedure to suppress outlying infestations and prevent them from developing rapidly into new centers of spread."

Soil-treating programs to suppress outlying infestations have been completed, or definitely arranged for, in Georgia, Illinois, Indiana, Michigan, Ohio and Vermont. Soil treatment has been completed in one area in New York, and in the expectation that treatment will be applied at Niagara Falls, consideration of adding this section to the regulated area now is being deferred.

Extensive soil treatment has been completed in North Carolina, and with the suppressive measures that have been applied, it is believed that other action is not now required.

The beetle collections for the past season indicate, however, the need for extending the area regulated by the federal quarantine to include limited sections in Maryland, New York, Pennsylvania, Virginia and West Virginia, concludes the statement of P. N. Annand, chief of the bureau. It is planned to make the necessary extensions in the regulated areas in these states in the near future and to make other minor modifications to improve the effectiveness of the federal quarantine.

It is not contemplated to hold a hearing or conference to consider

the extension of the regulated area or modifications of the regulations in advance of making these changes. The statement is issued in lieu of the report that might be presented at such a conference.

Trap scouting was carried out in 462 localities in thirty-nine states in 1941, outside the area regulated by the federal quarantine. No beetles were collected in 368 of the 462 localities. Of the infestations, thirty-seven were of an incipient nature or have been kept in check by suppressive efforts. In the other fifty-seven localities the collections indicated infestations well established or of considerable scope. These were located in close proximity to the regulated area or were in a state carrying on a cooperative soil-treating program.

COUNTY CAN CONTROL JAP BEETLE BY NEW YORK LAW.

The signature of the governor has just made a law of New York state the bill sponsored by the legislation committee of the New York State Nurserymen's Association which per-

NURSERY STOCK

<i>Magnolia stellata</i> , 18 to 24 ins.	1.00	1.00
butcher	\$75.00	\$650.00
<i>Red Barberis</i> , 1-yr.	2.00	15.00
<i>Hemlock</i> , transpl. 2-yr., 4 to 6 ins.	5.00	40.00
Transpl., 3-yr., 6 to 9 ins.	7.00	60.00
<i>Transpl.</i> , 4-yr., 9 to 12 ins.	11.00	100.00
<i>Syringa vulgaris</i> , 3-yr.	3.00	25.00
<i>Flowering orange</i> , 2-yr.	2.50	20.00
<i>Thuya</i> , 5-yr., transpl.	8 to 12 ins.	6.00 30.00
<i>Pinus mughus</i> , 3-yr.	3.00	25.00
<i>Betula orientalis</i> , 2-yr.	1.50	10.00
<i>Ilex opaca</i> , 2-yr.	5.00	40.00

GRAFTS FROM POTS

<i>Abies</i> , in variety	30.00	---
<i>Japanese Maple</i>	22.50	200.00
<i>Cornus</i> , in variety	22.50	200.00
<i>Beech</i> , in variety	25.00	225.00
<i>Juniper</i> , in variety	22.50	200.00
<i>Maple</i> , in variety	25.00	225.00
<i>Reticulosa abietis</i> , in variety	20.00	---
<i>Thuja</i> , in variety	20.00	---
Tsuga, in variety	30.00	---

Complete list on request.

VERKADE'S NURSERIES WAYNE, N. J.

TREES

Thousands of fine SPECIMEN

PIN OAKS—3 to 4½-in., stemmed
6 to 7 ft., spaced 8x8 ft.

HEMLOCKS—6 to 15 ft., perfect.

Also
JAPANESE BEETLE TREATED
Hemlocks—*Taxus Capitata*

OUTPOST NURSERIES, INC.
Ridgefield, Conn.

mits counties in the state of New York to raise money for controlling the Japanese beetle. A. N. Christy, president of C. W. Stuart & Co., Newark, N. Y., who is chairman of the association's legislation committee, believes this is one of the most important pieces of legislation affecting nurserymen that has been enacted in his state for some time. The text of the bill follows, since nurserymen in other states may wish to have a similar law adopted there.

The act amends the county law of New York state by inserting the following new subdivision.

52-b. The board of supervisors of any county may from time to time appropriate and pay out such sums as it may deem proper, not exceeding in any one year, one-half of one mill on each dollar of assessed value of property taxable for general county taxes, for and in aid of the eradication, suppression or control of Japanese beetle infestation in the county, and raise money for such purpose by tax upon the taxable property of the county. The work for which such moneys are so raised and appropriated shall be done under the direction and supervision of the commissioner of agriculture and markets of the state of New York. In carrying on such work, the board of supervisors

SPECIMEN EVERGREENS

30 Acres

Choice Finished Stock

<i>Biota aurea nana</i>	18 to 24 ins.	\$1.65
<i>Blue Spruce</i>	Colo., 15 to 18 ins.	1.90
	Koster's, 2 to 3 ft.	3.25
	Moerheim, 2 to 3 ft.	3.40
<i>Junipers</i>		
	<i>Columnaris glauca</i> , 3 to 4 ft.	2.65
	<i>Canaerti</i> , 3 to 4 ft.	2.55
	<i>Hilli</i> (Dundee), 3 to 4 ft.	2.40
	<i>Mugho Pine</i> , 18 to 24 ins.	1.55
	<i>Pfitzer's</i> , 24 to 30 ins.	1.90

Other varieties and liners at nursery. Call early for complete selection. Stock should be selected at nursery; any shipment at purchasers' risk.

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BOTH NATIVE
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KALMIA AZALEAS Hemlocks AND Pieris

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LINING-OUT STOCK**OUR SPECIALTIES . . .**

Norway and Schwedler Maple Whips,
5 to 6 ft., and 6 to 7 ft.

HYDRANGEA—P. G., 1-yr. Layers

A very complete line of
**ORNAMENTAL TREES, SHRUBS
AND EVERGREEN SHRUBS**
including many scarce items. Send
for first 1942 list.

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NORWAY MAPLES

ACER PLATANOIDES Per 1000

12 to 18 ins.....	\$12.00
18 to 24 ins.....	18.00
2 to 3 ft.....	35.00
3 to 4 ft.....	50.00
4 to 5 ft., transplanted, \$15.00 per 100	

SPECIAL: Send 25% cash with order, or
10% discount for full cash with order.

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HERBS

Pot-grown plants; over a hundred varieties.
Dried Herbs for Flavoring and Fragrance.
Other plants of unusual character and
with the charm of old-time gardens.
New Catalogue sent on receipt of 10 cents.
WEATHERED OAK HERB FARM, INC.
Bradley Hills, Bethesda, Maryland

LARGE-FLOWERING CLEMATIS

\$4.00 per dozen, \$25.00 per 100

THE D. S. GEORGE NURSERIES
Fairport, N. Y.

**Nursery Stock at
Wholesale Only.**



ARTHUR DUMMETT
61 W. Grand St. Mount Vernon, N. Y.

Old English**BOXWOOD**

(Wholesale Only)

Greatest Assortment of Large and Small
Specimens in U. S. 10 inches to 6 feet.

BOXWOOD GARDENS
Mrs. R. P. Boyer High Point, N. C.

**GRAPEVINES, GOOSEBERRIES
CURRENTS and BERRY PLANTS**

Growing for the wholesale trade since 1890.
The quality of our plants will please your most
critical customers. Get our attractive quotations
before placing your order.

THE F. E. SCHIFFERLI & SON NURSERIES
Fredonia, N. Y.

BARBERRY SEEDLINGS

Few thousand Atropurpurea left.
Almost any quantity Thunbergi,
2-year. Write for prices.

COOK'S NURSERIES Geneva, O.

may employ such help as may be necessary
and may authorize the county treasurer to
pay the moneys so raised and appropriated
on the requisition of a committee of the
board, a county agency constituted by the
board to carry on such work or on verified
bills after due audit. Employees engaged
in such work may enter upon any lands,
whether publicly or privately owned, for
the purpose of suppressing and controlling
Japanese beetle infestation, and no action
for trespass or other cause shall lie therefor.
Accounts of money expended by and such
committee of the board of supervisors or
agency of such board shall be rendered to
the board in the time and manner pre-
scribed by resolution pertaining thereto.

**DEBATE QUARANTINE ON
WHITE-FRINGED BEETLE.**

The white-fringed beetle, which is
harmless in south Louisiana, but for
which nurserymen and others in that
section have to pay such a large price
because of federal control activities
to prevent the spread into sections
where it may not be so innocuous,
was the principal subject before the
meeting of the New Orleans Horti-
cultural Society February 26, at New
Orleans, La.

Guests of the society were Avery
S. Hoyt, associate chief of the bureau
of entomology and plant quarantine
of the United States, and J. C. Hol-
ton, former commissioner of agriculture
of Mississippi, now with the bu-
reau as public relations officer. The
Louisiana state entomologist, W. E.
Anderson, was also present. Offi-
cials have been holding a series of
executive conferences with interests
affected by the beetle campaign. Dan
A. Newsham, chairman of the beetle
committee of the society, said florists
and nurserymen will cooperate with
government authorities to the fullest
extent. He said that he will make a
full report on the beetle situation at
next month's meeting.

Mr. Hoyt said the fight against the
beetle began, in this country, in the
summer of 1937. How long the beetle
had been in this country is not known;
it was first observed in 1936 on the
Alabama-Florida line, where it did
much damage.

"It is impossible to solve such a
problem in a short time," he continued.
"We have learned much, but
we still have much to learn. We re-
gret the inconvenience and the ex-
pense our control methods have caused
you. What makes the situation espe-
cially annoying to you is the fact that
the beetle has never done any damage
in your part of the country; nevertheless,

RASPBERRY PLANTS

Taylor

Latham

Chief

Marcy

Indian Summer

★ ★ ★ ★

RED LAKE Currant

★ ★ ★ ★

FOREST TREE SEEDLINGS

Ash

American Elm

Chinese Elm

Soft Maple

★ ★ ★ ★

Send for Trade List.

ANDREWS NURSERY CO.

Faribault, Minn.

HARDY SMALL FRUITS

Raspberries, Blackberries, Dewberries
Grapes, all varieties

Spring Delivery

CUTLER & DOWNING CO.
Benton Harbor, Mich.

Wholesale Growers of

Grapevines, Currants, Gooseberries,
Blackberries and Raspberries

Let us quote on your requirements

FOSTER NURSERY COMPANY, INC.
60 Orchard St. Fredonia, N. Y.

SMALL FRUIT PLANTS

Evergreens—Shrubs

Lining-out Stock

Send for Complete Trade List

W. N. SCARFF'S SONS

New Carlisle, O.

HEMLOCKS

Sheared and several times transplanted

Write for our list

CURTIS NURSERIES
CALICOON NEW YORK

BURR

Leading wholesale source for
Nursery Stock.

Send us your Want List.

C. H. BURR & CO., INC.
Manchester, Conn.

less, you must suffer to prevent the spread of the pest into areas where the ravages may be highly destructive."

The bureau expects to modify the rigors of the quarantine as it perfects its attack on the beetle, said Mr. Hoyt, adding that if the government withdrew from Louisiana, there might be, instead of this quarantine, much more drastic quarantines by the different states.

Mr. Holton said there is widespread dread of this beetle throughout the United States; agricultural interests fear it may become a major pest, like the boll weevil, so destructive to the cotton fields. Mr. Anderson spoke along the same lines.

Elmer A. Farley and Peter A. Chopin emphasized the lack of damage which the beetle does in south Louisiana and questioned the possibility of the pest's becoming a great threat. Mr. Chopin said that the frequent changes of control method by the entomologists have put nurserymen to enormous expense.

The following morning a committee consisting of Dan Newsham, Elmer E. Farley, Herman E. Farley, Henry Kraak, Peter A. Chopin, Paul Abele and George P. Dupuy met with federal and state officials to reach an agreement as to the nurserymen's program. B. M. Gaddis stated that nurseries in infested areas, but in which no beetles have been found within three years, would be eligible to certification, provided suitable barriers were erected before May 1. The cost of such barriers, it was asserted in reply, was almost prohibitive with the present shortage of galvanized iron. The officials promised to work out the individual problems according to the conditions surrounding each nursery so that the quarantine would be as light as possible, as it is apparent that the quarantine is to be maintained.

CATALOGUES RECEIVED.

Forest Nursery Co., McMinnville, Tenn.—Wholesale price list of general stock, 32 pages, 4x9 inches.

I. E. Ilgenfritz' Sons Co., Monroe, Mich.—Wholesale price list of general stock, 56 pages and cover, 5x8 inches.

E. D. Robinson, Wallingford, Conn.—Trade list of general stock handled as agent for five eastern nurseries, 80 pages and cover, 4 1/4x8 1/2 inches.

Evergreen Nursery Co., Sturgeon Bay, Wis.—Wholesale price list of lining-out stock and specimen evergreens, 8 pages and cover, 4x9 inches.

Fairview Evergreen Nurseries, Fairview, Pa.—Wholesale list of general line of stock, 36 pages, 5 3/4x8 3/4 inches.

Herbst Bros., New York, N. Y.—Wholesale price list of seeds for nurserymen, 24 pages, 4x9 inches.

Le-Mac Nurseries, Hampton, Va.—Wholesale price list of nursery stock features azaleas, 20 pages and cover, 4x9 inches.

Curtis Nurseries, Callicoon, N. Y.—Wholesale price list of nursery stock features Canada hemlock, 12 pages, 4x9 inches.

Bagatelle Nursery, Huntington Station, N. Y.—Wholesale list of choice ornamentals, 16 pages and cover, 4x9 inches.

Kelsey-Highlands Nursery, East Brookfield, Mass.—Trade list of general stock, both nursery-grown and collected, 16 pages, 4x9 inches.

Corliss Bros., Inc., Nurseries, Gloucester, Mass.—Wholesale price list of perennials, 8 pages, 4 1/4x9 1/2 inches.

Storrs & Harrison, Inc., Painesville, O.—Spring wholesale list of nursery stock, seeds, bulbs and greenhouse plants, 112 pages and cover, thumb indexed, 4 3/4x8 1/4 inches.

Plumfield Nurseries, Fremont, Neb.—Wholesale trade list of general line of stock, 32 pages and cover, 6x8 3/4 inches. Also attractive illustrated retail catalogue, 20 pages and cover, 8x11 inches.

Walter A. Studley, Nursery, Fennville, Mich.—Price list of evergreens, 4 mimeographed pages, 8 1/2x11 inches.

Muskogee Greenhouse Co., Muskogee, Okla.—Price list of nursery stock features mainly evergreens, 15 mimeographed pages and cover, 8 1/2x11 1/4 inches.

Hill Top Orchards & Nurseries, Hartford, Mich.—Price list of nursery stock, with special section devoted to garden chrysanthemums, 40 mimeographed pages, 5x8 1/2 inches.

William N. Craig, Weymouth, Mass.—Descriptive price list of ornamental stock including some bulbs and seeds, 56 pages and cover, 4x9 inches.

Arapahoe Acres Nursery, Littleton,

LARGE EVERGREENS

Perfect specimens, grown privately as a hobby. Straight, single trunks, lightly sheared annually, root pruned.

- 10 American Hemlock, 16 to 18 feet.
- 10 Colorado Spruce, 12 to 14 feet.
- 10 Douglas Fir, 18 to 20 feet.
- 10 Koster Blue Spruce, 10 to 12 feet.
- 5 Concolor Fir, 10 to 12 feet.
- 5 Yew Trees, 8 to 10 feet.

Grown to be sold only at the predetermined price of \$25.00 each, as they stand. Moving and guarantee extra.

BROOKS BROS. NURSERIES

Monroe, N. Y.

JUNIPERUS PFITZERIANA

Each

100 Well filled plants, 18 to 24 ins.	\$1.40
200 Well filled plants, 24 to 30 ins.	1.75
100 Well filled plants, 30 to 36 ins.	2.25

100 Juniperus Andorra, 24 to 30 ins. 1.50

1,000 Euonymus Patens, 12 to 18 ins., Field-grown clumps...

2,000 Euonymus Patens, 8 to 10 ins., Well branched, bed-grown... .10

R. G. MINICH NURSERIES

Post Office: Overland Park, Kan.
Phone: Hedrick 0790, Kansas City, Mo.

EVERGREENS

Fine lining-out stock for immediate shipment.

Taxus cuspidata, Spreading Yew

Per 25 Hemps Per 100 Per 1000

4 to 6 ins. X...	\$2.50	\$ 7.50	\$ 70.00
6 to 8 ins. X...	3.00	10.00	85.00
8 to 10 ins. X...	3.50	12.50	110.00

Azalea anomala

4 to 6-in. spread...	10.00	80.00
----------------------	-------	-------

Chinese Arborvitae

4 to 6 ins. X.....	2.00	18.00
6 to 8 ins. X.....	3.00	25.00

ESHAM'S NURSERIES

Box 65A, Frankford, Del.

EVERGREENS

A complete assortment

Young Thrifty

Well Grown
Transplanted

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Newark, New York

HYDRANGEAS

At special surplus prices

P. G.

Field-grown, No. 1, 12 to 18 ins....	10c
Field-grown, No. 1, 18 to 24 ins....	14c
Field-grown, No. 1, 2 to 3 ft....	18c

A. G.

Field-grown, No. 1, 2 to 3 ft....	18c
Field-grown, No. 1, 3 to 4 ft....	25c

CEDAR RAPIDS NURSERY CO.

Cedar Rapids, Ia.

Among the leading Hydrangea growers.

NORWAY SPRUCE SEEDLINGS

Special Reduced Prices

	Per 1000
2 to 4-in. sdgls.	\$10.00
4 to 6-in. sdgls.	15.00
6 to 10-in. sdgls.	20.00
10 to 12-in. sdgls.	30.00
12 to 15-in. sdgls.	35.00
15 to 18-in. sdgls.	40.00
(300 trees at 1000 rate)	

New complete wholesale list now ready. Write for copy.

SHERMAN NURSERY CO.

Charles City, Iowa

Heavy

Pfitzer Juniper Liners

Per 1000

4 to 6 ins., 2 1/2-in. pots.	\$ 80.00
6 to 8 ins., 2 1/2-in. pots.	100.00

Select

Chinese Elm Trees

3-inch to 6-inch caliper

SNEED NURSERY CO.

P.O. Box 798 Oklahoma City, Okla.

JUNIPERUS PFITZERIANA

2-year field-grown.

8 to 10 ins.	10c ea.
10 to 12 ins.	12c ea.

Empire Nursery & Orchard

Baileyton, Ala.

Upright Yew Seedlings

Taxus cuspidata—seed collected 1938 in pure Japanese forest stands. Runs all tree form—better than ordinary, mostly branched. F.O.B. northern New Jersey.

50,000 2-year. 3 to 5 inches

\$4.00 per 100, \$30.00 per 1000

KELSEY NURSERY SERVICE

500 Church St., New York, N. Y.

LINING-OUT STOCK B & B EVERGREENS

Write for our complete catalogue

T. G. OWEN & SON, INC.

South's Largest Florists and Nurserymen

Columbus, Miss.

Lining-out Evergreens

Good assortment of standard varieties.

Price list on request.

SCOTCH GROVE NURSERY

SCOTCH GROVE, IOWA

BURTON'S

HEADQUARTERS FOR
EVERGREEN GRAFTS, TRANSPLANTED
EVERGREENS, SHRUB LINERS.
RARE ITEMS YOU DO NOT
FIND IN MOST LISTS!
Write!
HILLTOP NURSERIES
CASSTOWN, OHIO

Kelly Bros. Nurseries, Dansville, N. Y.—Handsome retail catalogue of general stock, mainly fruits, 32 pages, illustrated, partly in color, 6 1/2x10 1/4 inches.

McConnell Nursery Co., Port Burwell, Ont.—Retail catalogue of general line of hardy stock, 52 pages and cover, illustrated, 6 1/2x9 1/4 inches.

Burgess Seed & Plant Co., Galesburg, Mich.—Retail catalogue of garden seeds, plants and bulbs includes some trees and shrubs, 80 pages and cover, illustrated, 8 1/2x11 inches.

Jackson & Perkins Co., Newark, N. Y.—Retail descriptive list of roses and perennials, beautifully illustrated in color, 48 pages, 9x11 1/4 inches.

Henry Field Seed & Nursery Co., Shenandoah, Ia.—Retail catalogue of plants, seeds, bulbs and supplies, 60 pages and cover, 9 1/2x13 1/2 inches.

Charles Fiore Nurseries, Prairie View, Ill.—Wholesale price list of general stock, 54 mimeographed pages, 4 1/4x8 1/2 inches.

Chase Nursery Co., Chase, Ala.—Spring surplus bulletin of general stock, dated February 21, 16 pages, 7 3/4x9 inches.

Sherman Nursery Co., Charles City, Ia.—Wholesale trade list, dated February 18, offers general assortment of stock, 36 pages and cover, 6x8 3/4 inches.

Barnes Bros. Nursery Co., Yaleville, Conn.—Wholesale price list of nursery stock lists many perennials, 32 pages, 5 1/2x7 3/4 inches.

Verkade's Nurseries, Wayne, N. J.—Price list of lining-out and specimen stock, 12 pages and cover, 4x9 inches.

Nut Tree Nurseries, Downingtown, Pa.—Price list of nursery stock features nut trees, 8 pages, 4x9 inches.

N. A. Hallauer, Webster, N. Y.—Price list of hardy plants, dwarf shrubs and bulbs, 24 pages and cover, 4x9 inches.

Sarver Nursery Co., Dallas, Tex.—Retail catalogue of general stock, 48 pages and cover, 4x9 inches.

Bunting's Nurseries, Inc., Selbyville, Del.—Retail catalogue features mainly fruits, 40 pages, illustrated, partly in color, 8 1/2x11 inches.

Hallowell Seed Co., San Francisco, Cal.—Retail garden catalogue includes seeds, bulbs, nursery stock and supplies, 96 pages and cover, 7x9 1/2 inches.

R. M. Kellogg Co., Three Rivers, Mich.—Retail catalogue features mainly garden flowers, illustrated, partly in color, 68 pages and cover, 8x11 inches.

Whitten Nurseries, Bridgeman, Mich.—Retail price list of general stock, illustrated, 48 pages, 8x11 inches.

Allen's Nurseries & Seed House, Geneva, O.—Retail catalogue of nursery stock and seeds, 48 pages, 8x11 inches.

Griffing Nurseries, Beaumont, Tex.—Wholesale price list of trees and shrubs for the southwest, 36 pages and cover, 4x9 inches.

Krieger's Wholesale Nursery, Bridgeman, Mich.—Wholesale price list of small fruit plants and vegetable roots, 6-page folder, 4x8 1/2 inches.

Kelsey Nurseries, St. Joseph, Mo.—Trade list, dated February 18, offers complete assortment of stock, 40 pages, 6x9 inches.

Shepard Nurseries, Skaneateles, N. Y.—Trade list, dated March 5, of general stock, 11 multigraphed pages, 8 1/2x11 inches.

Oberlin Peony Gardens, Sinking Spring, Pa.—Descriptive price list of peonies, 24 pages, 6x9 inches.

GRAFTED STOCK

Strong healthy plants from 2 1/2-in. pots suitable for planting direct in nursery rows. Ready for shipment about May 1, 1942.

	Per 100	Per 1000
chin. columnaris glauca	\$25.00	\$225.00
chin. mascula	25.00	225.00
chin. officinaria Kallayi		
compacta	25.00	225.00
chin. pyramidalis	25.00	225.00
excea stricta	25.00	225.00
squamata meyeri	25.00	225.00
virg. Burkii	25.00	225.00
virg. Canarii	25.00	225.00
virg. Canarii Kallayi		
type	25.00	225.00
virg. glauca	25.00	225.00
virg. globosa	25.00	225.00
virg. Keteleeri	25.00	225.00
virg. Schottii	25.00	225.00

	PICEA	Per 100
pungens Kosteriana	\$20.00	275.00
pungens Moorheimii	\$20.00	325.00

Write for our complete list of field-grown lining-out evergreens and rooted cuttings from pots. We have a complete list of all popular varieties.

The Kallay Bros. Company

Painesville, Ohio

NORTHERN-GROWN LINING-OUT STOCK

	Balsam Fir	Per 1000
4 to 6 ins. collected	\$ 5.00	
2-yr. 4 to 6 ins.	10.00	
Pfitzer Juniper		
6 to 8 ins. trans.	\$10.00	Per 100
American Larch		
18 to 24 ins. trans.	6.00	
Canoe Birch		
2 to 4 ft.	5.00	

For the Sales Lot or Store

	Balsam Fir	Per 1000
select collected	\$ 10.00	
12 to 18 ins. good roots	\$25.00	

Hardy Giant Ostrich Wood Ferns

Large clumps

5% discount. Free packing on March orders. Satisfaction guaranteed.

J. R. PALMER & SON
Blackduck, Minn.

COLORADO BLUE SPRUCE

2-year seedlings

	Per 100	Per 1000
(2-0) 0 to 2 ins.	\$2.00	\$9.00

F.O.B. Fennville

Shipped April 1 to May 15.

Seedlings grown from seeds from cones hand picked from blue trees in Colorado.

Michigan-grown seedlings.

WALTER A. STUDLEY, NURSERY
Dept. AN
Fennville, Mich.



EVERGREENS

For Seventy-eight Years

Growers of Quality Evergreens

Lining-out Stock a Specialty

Write for Trade List

EVERGREEN NURSERY CO.

Established 1864 : STURGEON BAY, WIS.

Per 1000

12 to 18 ins. trans. from Montana and New Mexico seed. (3,000 to offer).....\$15.00

1-2-yr. seedlings.....2.50

Douglas Fir, 3 to 6 ins. 2-yr. old....2.00

Red cedar, Piatt River Type, 1 yr.\$22.50 per 1000.

CUTLER & VENNARD NURSERY

Box 294, Sioux City, Ia.

SILVER CEDARS — For Lining-out

Juniperus scopulorum

12 to 18 ins. trans. from Montana and New Mexico seed. (3,000 to offer).....\$15.00

1-2-yr. seedlings.....2.50

Douglas Fir, 3 to 6 ins. 2-yr. old....2.00

Red cedar, Piatt River Type, 1 yr.\$22.50 per 1000.

CUTLER & VENNARD NURSERY

Box 294, Sioux City, Ia.

Reviews of New Books

PROPAGATION OF PLANTS.

Four years ago there appeared a complete revision of a book which had been a standard text on plant propagation for about twenty years. Now that work in turn has been revised and enlarged by the authors, M. G. Kains and L. M. McQuesten, and this new edition of "Propagation of Plants" has just been issued by the Orange Judd Publishing Co., at \$3.50.

For those not familiar with the work, it may be said that the 640 pages embody not only the practical knowledge of the authors, but also the results of their review of the plant propagation literature of the world, so as to bring the most useful and up-to-date material into this all-embracing volume.

Especially helpful to the novice are the 600 pictures included in the book; these have been indexed by key words so that the reader may readily find what is particularly applicable to his needs.

There is little point in attempting to review in brief space the contents of so extensive a work, and there is little need, because the book covers just about everything on the subject of propagation, from the explanations for a beginner to the specialized practices for difficult plants for the benefit of professional propagators. The text is in simple language that explains technical and scientific terms, and the conciseness enables the authors to cover a vast amount of ground.

SHADE TREES.

Most arborists and many nurserymen are acquainted with Dr. Ephraim Porter Felt, director and chief entomologist of the Bartlett tree research laboratories and for thirty years state entomologist of New York. His book, entitled "Our Shade Trees," published in 1938 was well received, and the second edition is the more valuable because there have been incorporated in its contents more important lessons of the 1938 hurricane in New England.

While the volume is primarily a service book for tree owners, its contents are of value to those whose interest in the subject is commercial,

because the observations and experiences of Dr. Felt over a period of many years have provided him with a firsthand knowledge from which emanate many useful hints and suggestions with regard to tree care.

This compact volume of 316 pages, published by the Orange Judd Publishing Co., at \$2, is well worth a place in the nurseryman's library.

HOME VEGETABLE GARDEN.

According to publishers' announcements, several books will be available this spring to instruct those who participate in the national victory garden program in the production of vegetables in the home garden. Already received is "Home Vegetable Gardening," by Charles H. Nissley, extension horticulturist in vegetable growing at the New Jersey agricultural experiment station for the past twenty-five years. He is already well known as an author, in the trade chiefly for that useful book, "Starting Early Vegetables and Flowering Plants under Glass."

His new book, "Home Vegetable Gardening," is a handy little volume, the page size being 5x7½ inches, and the 250 pages present in compact form accurate information, which the preface says is not only the result of practical experience, but also includes a review of literature pertaining to the home vegetable garden issued by the majority of the state agricultural colleges in the

country, a review of books written by authorities, and bulletins published by the United States Department of Agriculture.

Opening chapters advise in general terms about seeds, soil, culture, storing vegetables, control of insects and diseases and distribution of vitamins.

Over fifty important vegetable crops are discussed, in alphabetical order, anywhere from a page to several pages being devoted to each.

Bound in an attractive brown cloth, the book is published by the Rutgers University Press, at \$1.50.

Another new book on the same subject is "Grow Your Own Vegetables," by Paul W. Dempsey, for the last twenty-five years engaged in vegetable work at the Waltham field station of Massachusetts State College, and published by Houghton Mifflin Co., at \$2. Using larger pages, size 7½x10 inches, and larger type, it covers the subject thoroughly in its 184 pages, in which the author uses a more personal tone. Not only does he devote a chapter to planning and preparing the garden, but also includes a chapter on two model gardens, to show how to make the most of the space available. Cultural directions are given for each of the principal vegetables. In addition to the chapters about growing the plants is one on storing vegetables and an-



AMERICA'S LEADING PERENNIAL GROWERS

See our ads in December 1 and 15 issues or consult or ask for our general catalogue.

Southern Growers!
We can ship at any time.

WELLER NURSERIES CO., Inc.
Holland, Mich.

JUNIPERUS VIRGINIANA

Platte River Type.
2-year transplants.

	Per 100	Per 500
18 to 24 ins.....	\$18.00	\$70.00
12 to 18 ins.....	14.00	60.00
9 to 12 ins.....	12.00	56.00

RHUBARB ROOTS

(Whole roots), immediate or later shipment.

	Per 100	Per 1000
1 ½ to 2 -in.....	\$5.00	\$25.50
1 to 1 ¼-in.....	2.50	20.00
% to 1 -in.....	2.00	15.00

CHINESE ELM TRANSPLANTS

Well rooted, well branched, good caliper.
Per 100 Per 1000

	Per 100	Per 1000
6 to 8 ft.....	\$5.50	\$30.00
4 to 6 ft.....	2.25	18.50
3 to 4 ft.....	1.65	15.00

LOMBARDY POPLAR

1-year whips.

	Per 100	Per 1000
5 to 6 ft.....	\$5.50	\$25.00
4 to 5 ft.....	6.50	55.00
3 to 4 ft.....	4.50	40.00

ASPARAGUS

Mary Washington.

2-yr. No. 1 plants, per 100.	80¢; per 1000.
\$7.00; per 10,000.	\$65.00

HORSE-RADISH

White Bohemian.

Large crowns	Per 100	Per 1000
Cuttings, 6-in.....	1.00	9.50

Above stock first-class in every respect.
Cash with order. No charge for packing.

Pritchard Nurseries, Ottawa, Kan.

HOBBS

PEACH, Leading Varieties.

ELM, American, 8 to 10 ft. up to 2½-in.

MAPLE, Norway, 8 to 10 ft. up to 5-in.

WILLOW, Thurlow, 8 to 10 ft. up to 3½-in.

Large stock of Evergreens up to 5 to 6 ft.

Juniper, Pfizer, 1200 3 to 5 ft.

Shrubs, Roses, etc.

C. M. Hobbs & Sons, Inc.

Bridgeport, Indiana

Oldest and Largest Nursery in Indiana
Established 1875**Write us for
SPECIAL PRICES**

on

Apples—Cherries, Sweet and Sour
Peaches—Plum—Pear—QuinceWE CAN SELL AT A PRICE
THAT WILL BRING REAL
PROFITS TO YOU.**KELLY BROS. NURSERIES**
DANVILLE, N. Y.

Since 1880

**Bearing Size
CHERRIES**

1 to 1½-inch Caliper, 5 to 6 feet.

Heavy, well branched

Montmorency and Early Richmond
\$4.00 per 10; \$35.00 per 100;
\$300.00 per 1000.**WILLIS NURSERY CO.**
Ottawa, Kansas**Amur River North Privet Cuttings**

Let us make up your cuttings from our tried and proved "Mother Blocks." Genuine Amur River North Privet. All cuttings hand sorted. \$2.00 per 1000; 5,000 or more, \$1.00 per 1000. Cash with order, packing free. Order at once.

ALTA VISTA NURSERIES
Davenport, Iowa**JUNIPERUS PFITZERIANA**Strong Rooted Tip-Cuttings
\$3.50 per 100, \$30.00 per 1000

Sample of 12 sent prepaid for 50c Defense Saving Stamp.

J. B. BEALLE Greenwood, Miss.

SURPLUS LIST

		Per 100
2000 American Elm, 2 to 2½-in.		\$125.00
2000 Green Ash, 6 to 8 ft.		25.00
1000 Chinese Elm, 6 to 8 ft.		15.00
500 Lombardy Poplar, 6 to 10 ft.		20.00
1600 Radish, 6 to 8 ft.		45.00
300 White Birch, 8 to 10 ft.		135.00

WANTED: A few thousand lining-out evergreens and shrubs, also Juniper grafts. Will be glad to make an exchange.

EGYPTIAN NURSERY CO., Farina, Ill.

other on preparation for the table. Chapters on small fruits and flowers as supplements to the vegetable garden are similarly instructive.

NICOLSON BUYS GURNEY'S.

John W. Nicolson, Shenandoah, Ia., has purchased the controlling interest in Gurney's, Inc., Yankton, S. D.

Charles H. Gurney, who was president and owner of this corporation, is with the armed forces. Since his army duties would require his indefinite absence from Yankton, he decided to sell his stock interest in full.

Gurney's, Inc., is a new company, successor to the House of Gurney and the old Gurney Seed & Nursery Co., which served the northwest for seventy-six years. Business will continue as a complete mail-order organization for the growing and merchandising of seeds, nursery stocks and baby chicks.

New officers of the corporation are George W. Gurney, president; J. B. (Burke) Schriver, vice-president and manager; John W. Nicolson, treasurer, and Agnes Madsen, secretary and assistant treasurer.

Mr. Nicolson has had wide experience in the seed and nursery business. He was head of the agronomy department of Michigan State College some twenty years ago. He has been associated with the Michigan state farm bureau and the Peppard Seed Co., Kansas City. He is now vice-president and manager of the Henry Field Seed & Nursery Co., Shenandoah, Ia.; president of the Nebraska Seed Co., Omaha, and an official of the Henry Field Hybrid Corn Co. and of the Minnesota Seed Co., Faribault, Minn.

PICTURES of Long Island gardens were shown by Paul Vosburgh, of Hicks Nurseries, Inc., Westbury, N. Y., at a recent meeting of the Garden City chapter of the American Association of University Women.

THE engagement is announced of William Ray (Bill) Dodd, son of Tom Dodd, Sr., president of the Southern Nurserymen's Association, and connected with the Tom Dodd Nurseries, Semmes, Ala., to Miss Mary Elizabeth Evans, of Mobile, Ala.

JEWELL NURSERIES, INC.

K 41 Lake City, Minn.

Write for Prices**Pyramidal Arborvitae
Liners**

in 2½-inch pots

BuddleiaCharming, Dubonnet,
Hartwegi, Ille de France
in 2½-inch pot liners**Honeysuckle**Heckrottii
in 2½-inch pots**Clematis**

Large-flowering

in 2½-inch pots and 4-inch pots

Jackmanni, Mme. Andre,
Henryi, Baron Veillard,
Gypsy Queen, Ville de
Lyon, Ramona**Clematis**Paniculata
2-yr. No. 1

Jewell Quality for 75 Years

**NURSERY-GROWN
DOGWOOD SEEDLINGS**Grades, 4 to 6, 6 to 12, 12 to 18 and 18 to 24 ins.
Prices are very reasonable.

NAUGHER NURSERY Chase, Ala.

ARBORVITAE

Goldspire, 3 to 8 ft., 75c.

Abelia Grandiflora3 to 4 ft., once cut back, bushy, 50c.
These prices are for B&B plants at nursery or
in carlots F.O.B. our shipping point, La Grange,
Ga.

Mountville Nurseries, Mountville, Ga.

PEACH PITSOur Pits Compare Favorably
With the BestHOGANSVILLE NURSERIES
HOGANSVILLE, GEORGIA

Cornus Sericea, 2 to 4 ft., 50c; 4 to 6 ft., 75c;
5 to 6 ft., \$1.00. Cornus Florida rubra, 3 to 3½ ft., 50c; 3 to 4 ft., \$1.00; 4 to 5 ft., \$1.50.
Above prices are for B&B. If wanted NR, 20% less.
Red-leaved Barberis, 15 to 18 ins., 12s; 18 to 24
ins., 15s. Green-leaved Barberis, 15 to 18 ins.,
18s; 18 to 24 ins., 12s.

Klein Nursery & Floral Co.
Crestwood, Ky.

Native Azaleas in Variety

For Color and Beauty Get Azaleas.		Per	Per
Azalea, Calendulacea	100	1000	
6 to 12 ins., L.O.	\$ 2.00	\$16.00	
12 to 18 ins., clumps,			
branched 10.00			
18 to 24 ins., clumps,			
branched 15.00			
Azalea, Mixed Colors			
12 to 18 ins., clumps,	5.00	40.00	
branched 8.00		75.00	

Tree Seedlings, Nursery-grown

Silver Maple		1.00	4.00
12 to 18 ins.		1.25	6.00
18 to 24 ins.		2.00	12.00
2 to 3 ft.			
Sassafras Seedlings			
12 to 18 ins.	1.00	6.00	
18 to 24 ins.	1.50	10.00	

Native Evergreens Collected

Tsuga Canadensis, Hemlock		.80	4.00
3 to 6 ins.		1.00	7.00
6 to 9 ins.		1.25	10.00
9 to 12 ins.		3.00	25.00
18 to 24 ins.			
2 to 3 ft.		7.00	
3 to 4 ft.		15.00	
4 to 6 ft.		25.00	
American Holly			
3 to 6 ins.	1.00	5.00	
6 to 9 ins.	1.50	8.00	

Vinca Minor, Nursery-grown

Transplanted, No. 1 clumps		2.00	16.00
Transplanted, No. 2 clumps		1.50	12.00

HIGHWAY GARDENS NURSERY

R. F. D. 3 on Highway No. 55
McMinnville, Tenn.

CANADA RED

The prodig in Rhubarb, dark red throughout. As vigorous as Mac-Donald. Can be grown from divisions only.

Prices reduced: Per 10 Per 100
No. 1 divisions \$7.50 \$65.00
Medium divisions 5.00 40.00

We grow a complete line of stock that is hardy for the Northwest.

SUMMIT NURSERIES
Stillwater, Minn.**JUNIPERUS SCOPULORUM**

2-year Seedlings		100	1000
4 to 6 inches.		\$4.50	\$10.00
6 to 9 inches.		6.00	55.00
9 to 12 inches.		7.50	68.00
Bed run.		6.00	50.00
B&B Specimens		10	100
12 to 18 inches.		\$9.00	\$20.75
18 to 24 inches.		1.10	.90
24 to 30 inches.		1.60	1.40
30 to 36 inches.		1.90	1.75
Cash prices.			

DIAL NURSERY
1906 N. Cooper, Colorado Springs, Colo.**LINERS**
Amur River North Privet Liners, 6 to 18 inches, \$12.50 per 1000; 3000 for \$30.00.
Spiraea Froebell, No. 1, \$4.00 per 100.
Cash with order, packing free.**ALTA VISTA NURSERIES** Davenport, Iowa

Please mention the
AMERICAN NURSERYMAN
when writing advertisers

SUPERIOR CALIFORNIA GROUP TO ADVERTISE.

The start of an intensive newspaper advertising campaign by the Superior California Nurserymen's Association to promote interest in home gardening and tie in with the victory garden program inaugurated by the federal government was announced last month by J. F. Wittsche, president of the association.

"The Superior California Nurserymen's Association was formed four years ago to build a better understanding among nurserymen," Mr. Wittsche said. "Today the organization consists of sixty-five nurserymen and extends from Stockton on the south to the Chico area on the north. The membership represents ninety-five per cent of the nursery industry in this section of the state."

"Meetings are held the first Wednesday of every month for the purpose of determining what plant materials are available in the territory, and to discuss problems vital to the industry."

A meeting was held March 4 at the Alhambra restaurant, Sacramento. William Ramsey, of C. M. Volkman Co., talked on sales promotion, and Al Morrison showed some interesting slides. The educational radio program started in February.

CENTRAL CALIFORNIA MEETING AT IRVINGTON.

The regular monthly meeting of the Central California Nurserymen's Association was held at Irvington, February 19. About fifty members were present. President Clarence Perkins, of Jackson & Perkins Co. of California, presided.

H. Raymond Hall, chairman of the victory garden committee for Alameda county, gave a most interesting talk on the relation between the victory garden campaign and preparedness for national defense. The talk brought out much discussion, and Roland Langley reported on the progress of the program of victory gardens in Santa Clara county. Mr. Hall stressed the idea that planting of vegetable gardens this year will give many people valuable experience that may be of great help later on if and when a real shortage of vegetable produce should develop.

The matter of a joint meeting

PFITZER JUNIPER

	Per 10	Per 100
24 to 30 ins.	\$17.00	\$165.00
30 to 36 ins.	24.50	240.00
3 to 4 ft.	27.50	265.00
4 to 5 ft.	32.50	300.00

CHINESE ELM SEEDLINGS

	Per 1,000	Per 10,000
12 to 18 ins.	\$ 4.00	\$ 35.00
18 to 24 ins.	6.50	55.00
2 to 3 ft.	9.00	75.00
3 to 4 ft.	11.00	95.00
4 to 5 ft.	18.00	150.00
5 to 6 ft.	30.00	.....

RUSSIAN OLIVE

2 to 3 ft.	\$13.00
3 to 4 ft.	16.00

Write for wholesale price list.

GURNEY'S INC.

Yankton, South Dakota

KUDZU VINES FOR CAMOUFLAGE

Fast-growing vine, 40 feet in one season, runners tough, shreddy, ideal for ground covers, or planted in tubs on roofs, will quickly screen tops and sides of buildings. 2 yr., No. 1, \$50.00 per 1000; medium, \$40.00 per 1000.

COCKSPUR THORN

A few hundred nursery-grown, low, heavily branched specimens, 4 to 6 ft., \$40.00 each; NR, 3 to 4 ft., \$30.00 each, B&B extra.

PEACH 1-YEAR

1000 each: Elberta, Jubilee, Hale, Haven. Other kinds in smaller quantities, \$90.00 per 1000 for ½-in. grade.

APPLE 2-YEAR

250 each: Baldwin, Grimes, Red June, Horse, Melba, McIntosh, Turley, Stayman, Rome, Winesap, ½-in., \$15.00; ¼-in., \$12.50 per 100.

HARDY SHRUBS, Good Ass't.

All stock freshly dug. Brisk winter but no injury. Write us for prompt handling.

E. B. DRAKE NURSERIES
Winchester, Tenn.**CHINESE ELM SEEDLINGS**

Hardy northern type, 1 and 2-year.		Per 100	Per 1000
6 to 12 ins.		\$0.50	\$4.00
12 to 18 ins. ....		.70	5.00
18 to 24 ins.		1.00	8.00
2 to 3 ft.		1.50	...
Cash—Packing Free.			

FIKE NURSERIES Hopkinsville, Ky.

PERENNIALS and ROCK PLANTS

Packaged for Retail Trade. The best package on the market. Beautiful illustrations, attractive display. Easy to handle.

HOLLAND FLOREX PRODUCTS CO.

Holland, Mich.

NORTHERN-GROWN NURSERY STOCK

Evergreen Liners — Specimen Evergreens, B&B Hardy Fruit Trees, Hardy Apple Seedlings, Ornamental Shrubs—Lining-out Shrubs, Trees and Vines. Write for price list.

J. V. BAILEY NURSERIES Dayton Bluff Sta. St. Paul, Minn.

CHINESE ELM Colorado-grown

Hardy strain, seedlings and transplants. Also English Elm, Ulmus campestris, seedlings. Wholesale list on request.

SWINK NURSERY CO.
SWINK, COLO.

PLANT MORE EVERGREENS IN 1942

The fresh, sternal beauty of evergreens never loses its appeal. The thoughts and hearts of the people are turning this year more than ever before to home protection, and to home beautification. Victory Gardens will include trees, shrubs, and flowers. In her direst need England realizes how essential are flowers and plants in maintaining civilian morale.

"He who plants a tree, plants hope."

The opportunity for the nurseryman and landscaper to serve is here, and progressive growers and distributors throughout the country are making early preparations to do their part in serving the public.

ARE YOUR STOCKS OF YOUNG EVERGREENS COMPLETE? AND ADEQUATE TO MEET THE DEMANDS THAT ARE SURE TO COME?

The evergreen types are rich in conifers, flowering shrubs and ground covers.

The very satisfactory conifers with their sweeping range of type, foliage and variable uses as specimens, mass plantings and hedges: *Abies*, *Pseudotsuga*, *Pinus*, *Picea*, *Cryptomeria*, *Taxus*, *Thuja*, *Tsuga*, *Thujopsis*, *Juniperus*, *Chamaecyparis* and others, from neat pygmies to towering giants.

And for slopes, rockeries and terraces the matchless evergreen ground covers: *Abelia*, *Cytisus*, *Genista*, *Hedera*, *Linncea*, *Teucrium*, *Erica*, *Vinca*, *Pentstemon*, *Juniperus*, *Ajuga*, *Cotoneaster*, *Euonymus* and others.

There is no place like the home

American homes should be the most lovely and attractive on earth. With less of travel, there will be more time and money to spend on the home. True patriotism always has its roots deeply implanted in the soil and the home. This is the year to plant.



Send in your order now or write for Wholesale Trade List. In case of shortage of stock of particular varieties, orders will be filled in consecutive order. Shipping cost on lining-out stock paid to all points in the United States. Wholesale only—mention the American Nurseryman.

with the Superior California Nurserymen's Association and the Red-



CLARENCE G. PERKINS.

Clarence G. Perkins, president of the Central California Nurserymen's Association, left the home office of his company at Newark, N. Y., in 1930 to organize the branch known as the Jackson & Perkins Co. of California, now at Pleasanton. He has since spent all his time developing that enterprise to the largest rose nursery in the world. While a good business is done on the west coast, that requires only a small percentage of the stock grown, and the remainder is shipped east in refrigerator cars and sold from the Newark office.

wood Empire Nurserymen's Association in May was received favorably, and the executive committee was requested to report further on it at the March meeting. The joint meeting is proposed to be held in early May during the Oakland spring flower show, and it is probable that the ladies will also be invited to attend.

The secretary reported that the association is now incorporated as a nonprofit organization.

Carl Salbach was elected to fill the vacancy on the executive committee caused by the enlistment in the army of Herman Sandkuhle, Jr.

The secretary was instructed to purchase a \$100 defense bond from association funds.

The next meeting was set for March 12 at San Jose, with Frank Tuttle in charge of arrangements.

John McDonnell, Sec'y.

LOS ANGELES SHOW.

The second annual midwinter flower show at Los Angeles, Cal., February 25 to March 1, at the Biltmore hotel, had entirely too much competition of a more spectacular nature to draw the attendance which is nec-

Surely the most exacting taste can be fully satisfied with these delightful evergreen blossoms: *Gaultheria*, *Kalmia*, *Leucothoe*, *Gentiana*, *Genista*, *Nandina*, *Escallonia*, *Photinia*, *Erica*, *Daboenia*, *Pyracantha*, *Cytisus*, *Camellia*, *Rosmarinus*, *Cassiope*, *Calluna*, *Berberis*, *Spartium*, *Vaccinium*, *Asalea*, *Rhododendron*, *Arctostaphylos*, *Xerophyllum* and others.

What a marvelous list from which to select evergreens! Unusual types and odd forms, new and old standard varieties, lasting from year to year, growing to perfection with but little care.

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essary to be called even moderately successful. Displays were of top quality, but were too few to indicate any real enthusiasm.

The theme of the show was the portrayal of California, from the redwoods to the tropics. In the foyer, between giant redwoods, a wide promenade led to a rocky waterfall setting. The plantings were made to border this central aisle. The background was a natural redwood fence, supplied by the California Rustic Fence Co., against which were flowering fruit trees, acacias, azaleas, rhododendrons, camellias and primulas. Many magnificent flowering specimens of azaleas and camellias were included. Cooperating in the planning and planting of this room were the Coolidge Rare Plant Gardens, Pasadena; Inglewood Nursery, Inglewood; Winsel-Gibbs Nursery, Los Angeles; Carter Camellia Gardens, San Gabriel; Kremer Plantations, Cardiff-by-the-Sea; Rosemary Herb Garden, Altadena, and the California Polytechnic College at San Dimas, as well as the American Gardeners' Association of Los Angeles.

Although individually designed and planned, the ballroom displays were well integrated to make a complete picture.

One side of the room was taken up with a "V for Victory" garden setting by the Germain Seed & Plant Co., Los Angeles. A huge V of sparkling mica, a red, white and blue shield and flags formed the central decoration, beneath which was a large wheelbarrow filled with vegetables. The rows of growing vegetable plants were all labeled. A border of low ground covers and cinerarias formed the foreground, and against the backdrop were various kinds of fruit trees of espalier type.

At the stage end of the ballroom the space was divided between the Armstrong Nurseries, Ontario and North Hollywood, and Evans & Reeves Nurseries, West Los Angeles. The first used massed arrangements of azaleas, camellias, small citrus trees, kentia palms, heather and cymbidium hybrids. Evans & Reeves Nurseries had a number of rare plants.

Del Amo Nurseries, Compton, went south of the border for their inspiration and had a luxuriant display against cut bamboo.

Inglewood Nursery centered a wishing well in a planting of evergreens,

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Norway Maple, 6 to 8 ft., 5 to 6 ft., branched.

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Deciduous Flowering Shrubs.

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RICHMOND NURSERIES RICHMOND BEACH, WASH.

daffodils, Chinese magnolia trees and flowering fruit trees.

W. E. Lammerts, of U. C. L. A., staged a special exhibit of ligustrums, with information pertaining to this genus.

OREGON NURSERY INCOME.

A cash income of \$3,115,000 from the sale of crops grown in Oregon in 1940 by commercial nurserymen and flower growers is reported in a study of production and income statistics for that year recently completed by M. D. Thomas, L. R. Breithaupt and N. I. Nielsen, of the state college extension service. In that year, 3,900 acres were devoted to specialty horticultural crops, of which forty-six per cent were in nursery crops and forty per cent in flower bulbs.

The largest portion of the income came from the sale of greenhouse crops, \$1,120,000, from sixty-five acres, the state having 2,830,000 square feet under glass.

Nursery crops, from 1,800 acres, accounted for \$930,000 income; flower bulbs, 1,540 acres, \$815,000; holly, 375 acres, \$85,000; flower seeds, twenty acres, \$35,000; cut flowers, 100 acres, \$130,000.

JUNIPER AND HOLLY SCALE.

Spraying with the proper oil spray at a time when new growth is just beginning to form gives excellent control of juniper and holly scale, according to recent experiments at the Oregon agricultural experiment station. Either two or three per cent oil sprays (light or light-medium) having an unsulphurization test of not less than ninety give good control with little or no spray injury, reports Joe Schuh, assistant entomologist at the station.

It was found that both the holly scale and the juniper scale begin feeding about the same time, when new growth was just starting to show, the last week in March in Oregon.

Sprays were applied at that time because (1) it was thought the scales might be more susceptible after a long period of inactivity, (2) there is little danger of oil spray injury from either freezing weather or excessive heat, (3) the absence of new growth reduces the hazard of spray injury to foliage, (4) less leaf surface is to be sprayed before new growth develops and (5) the number

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FRUIT TREES

DECIDUOUS SHRUBS

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18 to 24-in. to 3 to 4-ft. grades.

AZALEA, *Altaclarensis* and *Mollis*
10 to 12-in. to 24 to 36-in. grades.

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15 to 18-in. and 18 to 24-in. grades.

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California, English and *Lodense*.

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Double Violet, Single Purple and Single
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SOUTHWESTERN NEWS.

The Kansas City Nurserymen's Association met at the Westavary tearoom, March 2, for dinner. Fifteen were present. The big subject of discussion was the coming national convention. The members voted to invite their wives to meet and eat with them at the next meeting, which will be March 30. Frank Pflumm, Shawnee Nurseries, was elected president, succeeding S. R. McLane, of the J. C. Nichols Co., and E. Asjes, Jr., was elected secretary-treasurer, succeeding Marvin Shepherd, of Williams & Harvey Nurseries. Harold Crawford and John Pinney, of the Willis Nursery Co., Ottawa, Kan., were guests.

E. Asjes & Son, Kansas City, Mo., have bought a 20-acre tract three-fourths of a mile east and one-fourth mile south of their present location, for growing nursery stock. This place is on the Blue river, ideally situated for irrigating. It is the intention of the owners to move nursery stock gradually from the present site, at Grandview, to the new location.

L. M. Mitchum has been employed in a sales capacity by the Jackson Landscape & Nursery Co., Kansas City, Mo. Mr. Mitchum for twenty years was in the employ of the Ford Motor Co. in the accounting department. He has made gardening a hobby for many years and has worked part time for Mr. Jackson, so that he is well prepared for his new work.

M. L. Hall, of the San Luis Valley Nursery, Alamosa, Colo., spent the winter in Albuquerque, N. M., selling nursery stock. He reports that business is good.

The Heart of America Nursery Co., Overland Park, Kan., is building a propagating greenhouse and conservatory, 34x100 feet.

Dr. D. E. Hardy, of Utah, has succeeded John Nottingham as nursery inspector in the southern half of Kansas, working under Dr. H. B. Hungerford. Mr. Nottingham, a reserve officer in the coast artillery, has been called to active service.

The Armistice day freeze of 1940 resulted even more disastrously for fruit growers than was estimated last year, in the view of George W. Kinkead, secretary of the Kansas State Horticultural Society. "I think we lost over sixty per cent of all



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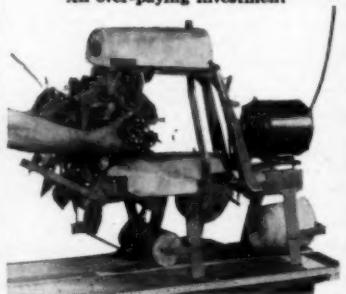
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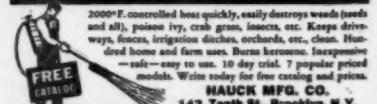
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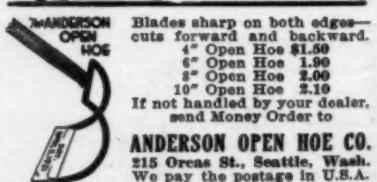
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the apple trees and ninety per cent of all the peach and cherry trees over 5 years old," said Mr. Kinkead. "The pear and apricot trees did not suffer so severely as did the other trees. We are finding now that many trees which seemed to get through last summer are dead and will not come out this spring, and many of those which seemed to be alive now will be found so weak they cannot produce any fruit." Mr. Kinkead has inspected many orchards, and generally it appears that the young trees are alive and thriving and many will come into bearing this year. It is chiefly the older trees which suffered from the extreme cold.

THE Rivers Garden Supplies & Nursery, 630 North Sepulveda boulevard, West Los Angeles, Cal., were opened recently by N. S. Rivers.

IN the series of monthly talks sponsored by the Massachusetts Nurserymen's Association, Marinus Van der Pol, of Van's Nursery & Landscape Service, Fairhaven, Mass., spoke February 27 over station WBZ on "Desirable Climbers for New England."

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				4x4x12
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500...\$1.05	500...\$2.15	1000...\$2.25	1000...\$3.25	6x6x6
1000...2.00	1000...4.15	1000...4.65	1000...6.50	6x6x8
				6x6x12
2½x2½x3		4x4x6		500...\$8.75
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Prepared specially for propagating many of the woody and semi-woody types of plants.

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OBITUARY.

Miss Jean Scott.

Miss Jean Scott, 22, daughter of Mr. and Mrs. Charles Scott, Manhattan, Kan., died March 1. Mr. Scott is one of the owners of the Prairie Garden Nursery, McPherson, Kan., and is active in its management. Last January he was elected president of the Western Association of Nurserymen at Kansas City.

Miss Scott was a graduate of the Kansas State Agricultural College and had until recently been head of the vocational homemaking department of the high school at Hot Springs, S. D. She was an honor student in college, active in the Y. W. C. A. and a member of Prix, honor society for outstanding junior women on the campus.

Surviving are her parents, Mr. and Mrs. Charles Scott; three sisters, Mrs. Ellis B. West, Topeka; Mrs. Merle A. Shanahan, Denver, and Hazel Marie Scott, McPherson.

Charles H. Greaton.

Charles H. Greaton, who for nearly half a century conducted the Greaton Nurseries, Providence, R. I., died in a hospital at that city March 6, at the age of 82. He was born at Farmington, Me. He was a past president of the Rhode Island Nurserymen's Association. His only surviving relatives are a brother, at Farmington, and a niece, at Reading, Mass.

Mrs. Nelly Vanderkraats.

At her home, near West Grove, Pa., Mrs. Nelly Vanderkraats, wife of Arie Vanderkraats, of the Paramount Nurseries, died March 2 at the age of 45. She had not been well for several months, but was able to be about as usual until the day of her death, when she suffered a stroke. Born in Holland, Mrs. Vanderkraats came to this country twelve years ago. Her husband survives, as do four stepchildren: Arie, Jr.; Richard and Arthur, all of West Grove, and Alice, a nurse in the University of Pennsylvania hospital at Philadelphia.

THE Sunset Seed & Floral Gardens, 580 Market street, San Francisco, Cal., operated by A. Raybine, were formerly located at Novato, Cal., and known as the Sunset Floral Gardens.

**PLATE BOOKS
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For All
POULTRY and AGRICULTURAL
REQUIREMENTS****TARDIF DOMESTIC
PEAT SALES CO.
WAUKESHA, WISCONSIN****SHINGLE TOW
Northern White Cedar
CONNOR LUMBER & LAND CO.
LAONA, WIS.****SPHAGNUM MOSS**
Unexcelled as nursery packing material. Economical because price low and very efficient. Write**WISCONSIN MOSS CO.
BABCOCK, WISCONSIN****FUMIGATE POTTING AND SEED FLAT SOIL
Larvacide**
right in bins, deep frames and compost piles. Saves cost of new soil; cuts hand weeding cost and controls most weed seeds, nematodes and fungi that cause damping-off. Write

INNIS, SPEIDEN & COMPANY 117 LIBERTY STREET NEW YORK, N.Y.

BUXUS SUFFRUTICOSA

We are offering for sale to the trade only one of the finest lots of Buxus suffruticosa in America at prices lower than ever before.

These plants are all extra heavy specimens with unusually heavy fibrous root systems and are grown in our nursery in Western North Carolina, outside of the Beetle Zone. Can be shipped to any State in the Union.

PRICES

	Per 100	Per 1000
8 to 10 ins. B. R.	\$ 24.00	\$ 220.00
10 to 12 ins. B. R.	32.00	300.00
10 to 12 ins. B&B	42.00	400.00
12 to 14 ins. B&B	75.00	700.00
14 to 16 ins. B&B	90.00	850.00
16 to 18 ins. B&B	100.00	950.00
18 to 20 ins. B&B	125.00	1,150.00
20 to 22 ins. B&B	135.00	1,250.00
22 to 24 ins. B&B	160.00	1,500.00

CONDITIONS OF SALE: We accept all orders on condition that they shall be void should any conditions arise beyond our control which would prevent us from filling orders.

All shipments are F. O. B. our nursery or Railroad Siding, Mocksville, N. C.

TERMS: For customers of established credit, payment will be due in 30 days from date of invoice.

All C. O. D. shipments must be accompanied by 25% of order.

A 5% discount will be allowed if payment in full accompanies order.

All plants are guaranteed to be No. 1 Specimen Stock or money will be refunded in full.

All orders and communications should be addressed to our Philadelphia District Office.

*Due to the shortage
of labor, we ask that
you place your orders
early so that they
can be filled in
plenty of time for
your Spring Sales.*

EIDSON LANDSCAPE COMPANY

Monument Ave. & City Line, P. O. Box 60, BALA, PA.

— TELEPHONE: CYNWYD 4700 — 4701 —

CLOVERSET POTS

THE POT FULL OF PROFIT FOR YOU



Patent No. 2073695



CLOVERSET POTS OFFER THE FOLLOWING ADVANTAGES:

- No loss from breakage.
- Weight only 1/16th the weight of same capacity clay pots.
- Low price, may be given away with the plant.
- Non-porous, only 1/2 as much water is required to sufficiently supply the plant.
- Easy to remove from the plant by the purchaser.
- Convenient to use by the grower.
- Practical in shape with twice the soil capacity of same size clay pot.
- Wide base prevents falling over in display gardens.

CLOVERSET POTS ARE NO EXPERIMENT

We have been using them successfully the past fifteen years, and last year we sold over one million of them to the Nurserymen and Florists all over the United States, and we have received hundreds of letters telling us of their success with them. We now offer you these Cloverset Pots as a profitable operating medium through which to market your Roses, Perennials, Vines and all small nursery stock.

STANDARD HEAVY CLOVERSET POTS

For the nurseryman who maintains a sales yard throughout the entire Spring, Summer and Fall and offers his goods in full foliage and, in season, in full bloom.

PRICES F. O. B. KANSAS CITY—Terms 30 DAYS: 2% DISCOUNT—10 DAYS

No.	Height	Diam. Top	Diam. Bottom	Soil Capacity	Corresponding Size Clay Pot	Weight Per 100	Per 100	Per 1000
0	5 ins.	5 ins.	4½ ins.	3½ lbs.	6-in.	35 lbs.	\$2.50	\$22.50
1	6½ ins.	6 ins.	5½ ins.	9 lbs.	7-in.	52 lbs.	4.00	35.00
2	9½ ins.	7 ins.	6½ ins.	15 lbs.	8-in.	77 lbs.	4.50	40.00
3	9 ins.	8 ins.	7½ ins.	20 lbs.	9-in.	88 lbs.	5.00	45.00

Trial Order: 1 carton each of the above four sizes, 400 pots in all for \$15.00.

No. 0 FOR PERENNIALS AND FOR GREENHOUSE USE.

No. 1 FOR PERENNIALS AND VINES.

No. 2 FOR ROSES AND SHRUBS.

No. 3 FOR LARGE SHRUBS AND TRANSPLANTING.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.
CLOVERSET POTS TAKE 3RD CLASS FREIGHT RATE. PACKED
100 IN CARTON READY FOR USE.
SAMPLE CARTON SHOWING ALL SIZES WILL BE MAILED ON
RECEIPT OF 25 CENTS TO PAY MAILING CHARGES.

NOTE

We do not sell less than 300 pots at the 1000 price.
Your order may be all one size or mixed.

SPECIAL LIGHT CLOVERSET POTS

For the nurseryman who maintains a sales yard during only the spring selling season and the fall planting season and who does not maintain his sales yard throughout the hot summer months.

In addition to our regular line, as described above, we make three sizes of our Cloverset Pots out of a lighter material, they being No. 0, No. 1 and No. 2. When pots are wanted for only the spring season's use, we think these light pots, which we call Special Light Cloverset

Pots, will be amply strong enough and durable enough for general purposes. They will be packed 100 in a carton and they weigh just one-third as much as the Standard Cloverset Pot. On these Special Light Cloverset Pots the following prices will be effective.

PRICES ON SPECIAL LIGHT CLOVERSET POTS

PRICES F. O. B. KANSAS CITY—Terms 30 DAYS: 2% DISCOUNT—10 DAYS

No.	Height	Diam. Top	Diam. Bottom	Soil Capacity	Corresponding Size Clay Pot	Weight Per 100	Per 100	Per 1000
0	5 ins.	5 ins.	4½ ins.	3½ lbs.	6-in.	15 lbs.	\$2.00	\$18.50
1	6½ ins.	6 ins.	5½ ins.	9 lbs.	7-in.	18 lbs.	3.00	27.50
2	9½ ins.	7 ins.	6½ ins.	15 lbs.	8-in.	25 lbs.	3.50	32.50

Trial Order: 1 carton each of the above three sizes, 300 pots in all for \$8.00.

SAMPLE CARTON SHOWING ALL SIZES WILL BE MAILED ON RECEIPT OF 25 CENTS TO PAY MAILING CHARGES.

We know that the florists and nurserymen are finding our pots a great help in growing better plants which being more attractive, bring a better price and, therefore, a better profit, and we know, from our own experience, that our pots enable us to sell our stock throughout the entire summer as it can be moved at any time, even during the hottest weather, without any wilt of either the

foliage or the bloom, since we do not in any way disturb the root system. All we ask is that you give our pots a trial, as we are sure they will please you, and at the low price we are quoting now, as listed above, they are cheap enough to be given away with the plant, which insures better satisfaction to your customers.

NOTE

We do not sell less than 300 pots at the 1000 price.
Your order may be all one size or mixed.

CLOVERSET POTS WILL HELP YOU GROW BETTER PLANTS

A plant grown in our Cloverset Pot means a better plant, which means a better satisfied customer, which means a larger business, which means more profit. Try our Cloverset Pots. We promise you they will not disappoint you.

Send for FREE Catalogue giving technical instructions for using Cloverset Pots and showing how we display our potted plants in our sales yards and gardens.

ERNEST HAYSLER & SON — CLOVERSET FLOWER FARM 105th STREET and BROADWAY — KANSAS CITY, MO.

Large and complete stock of Cloverset Pots are carried by our distributors in the following cities: Jackson & Perkins Co., Newark, New York; Vaughan's Seed Store, 601 W. Jackson Blvd., Chicago, Ill.; Mount Arbor Nurseries, Shenandoah, Iowa; Lake's Shenandoah Nurseries, Shenandoah, Iowa; Willis Nursery Co., Ottawa, Kan. For shipment from these points freight will be equalized with Kansas City.